The Journal of the American Medical Association

Published under the Auspices of the Board of Trustees

VOL. XLVI. CHICAGO, ILLINOIS, JANUARY 20, 1906. No. 3.

Addresses

THE THEORY OF NARCOSIS.*

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I esteem it a high honor as well as a great pleasure to address you on this occasion and to have been asked to open the first course of lectures of the Harvey Society. The establishment of these lectures is additional evidence, if such be required, of the great interest displayed by American physicians in theoretical conceptions and in scientific research, and, in addition, of an earnest effort to encourage and diffuse such knowledge.

I look, however, on the invitation extended to me as evidence of your friendly and fraternal sentiments toward the whole body of German scientists, and I may be permitted on their behalf to offer you an expression of their cordial appreciation.

Following the suggestion of your president, I have selected as a theme for this evening's lecture a subject which, for a long time, has repeatedly attracted and interested not only pharmacologists, but biologists as well, namely, the relationship between the pharmacologic action of a drug and its recognized chemical or physical properties. The solution of this problem presents great difficulties. Even with a knowledge of the chemical and physical properties of an active substance it is yet impossible, without further knowledge, to determine which of these properties is responsible for the specific action on the animal organism. And this the more so, since we do not know the chemical point of attack in the organism, and hence can not know the nature of the chemical reactions which occur between poison and protoplasm. Only in one way can we reach a conclusion that admits of probability. If we find a large series of different substances with different chemical and physical properties, which all possess identical or else very similar pharmacologic actions, then we can fix on the chemical and physical properties common to all and on which the common pharmacologic action naturally depends. So, for example, out of a mass of keys different yet all able to open the same lock we can determine which part of each key is the essential one, what form common to all fits the lock. And it is hardly necessary to point out that from this we can obtain an insight into the construction of the lock itself. In our case this means an insight into the chemical organization of protoplasm.

The first experiment in this direction was made by two English investigators—Crum-Brown and Fraser. They discovered the notable fact that practically all the ammonium bases, that is, organic bases in which the pentavalent nitrogen is connected with four valencies to carbon, exercise the same pharmacologic action, regardless of other differences in their constitution and nature; the action in this case being the same as that of curare, a paralysis of motor nerves. This definite relationship has been confirmed by many investigators, but the explanation for it is still lacking. It appears to me possible that the strongly basic character of all these ammonium bases is the chief factor. They are much more strongly basic than alkaloids and even sodium and potassium, and the few exceptions, such as betain, antipyrin and others which do not possess this strongly basic character, are also without the curare-like action.

Another series of experiments along this same direction, in connection with the action of the neutral alkali salts, has been conducted by Hofmeister. He has shown that all the effects of these salts, including their laxative and diuretic actions, may be explained by their physical properties, their diffusibility and osmotic strength.

This brings us to a third especially large group of substances whose actions are all identical in principle. I refer to those substances which are commonly designated anesthetics. To this group belong bodies quite distinct from each other chemically; alcohols, aldehyds, ketones, esters, ethers and numberless others. They all possess the common action of depressing the central nervous system. Wherein is the relationship? On which of their common properties is their narcotizing action dependent? The chemical composition of the nervous system itself gives the first clue for an understanding. It differs from all other tissues in its richness in fat-like constituents, and on the basis of this peculiarity Bibra and Harles attempted many years ago to explain the action of anesthetics. They found that the anesthetics dissolved ordinary fat, and, as a result of a quantitative estimation of the fat content of the brain of a normal and narcotized animal, assumed that the anesthetics directly removed fat-like substances from the brain. But these conclusions could not be confirmed. From another standpoint, however, Hermann arrived at a similar opinion of the action of narcotics. Hermann had discovered the presence of lecithin in the red blood cells, and since the anesthetics, such as ether, chloroform, etc., dissolve the blood cells, he explained this by their power of dissolving lecithin, and pointed out the parallelism between this process and the narcosis of the central nervous system. In both of these hypotheses there appeared to me to be an element of truth, and in order to establish this and define its character I myself instituted a series of experiments.

I started with the following assumption: If fat-solubility is indeed a necessary condition for narcotic action it is to be expected that all indifferent, fat-soluble substances must act as narcotics if they can enter the cells, and that, on the other hand, if by any circumstance they lose their fat-soluble property, then they must also become inactive. I have tested this assumption by investigating a series of substances made by combining components which in themselves had no narcotic action, but whose combinations were soluble in

* This, the first lecture in the Harvey Society course, was delivered at the New York Academy of Medicine, Oct. 7, 1905.

fat. As examples may be mentioned the amides of organic acids. These amides are neutral compounds which are soluble in fat and which all possess the typical narcotic action, with, however, one single exception, carbamide, and this particular one is insoluble in fat. Another group (comparable to the amides) is composed of condensation products of glycerin; the chlorhydrins, acetins and glycerin-ether. These also are soluble in fat and act as narcotics. All these substances, however, are very readily split up by hydrolysis into components insoluble in fat and on such decomposition lose immediately their narcotic power.[1]

Now, if from these and similar observations the conclusion can be drawn that the solubility of an anesthetic in fat is certainly one of the conditions for narcosis, the further question presents itself whether this condition is an essential one and whether it can be utilized as a measure of narcotic power. Were this the case, a quantitative relationship between narcotic power and solubility in fat must exist. But it is obvious that other factors must influence the action of narcotics in the animal body, for their affinity for the watery components of the body, as well as that for the fat-like constituents, must be considered. According to their relative solubility in the fat-like and non-fat-like constituents of the body they will distribute themselves between those constituents. So, for example, such substances as are very little soluble in water will dissolve for the most part in the fat-like constituents.

Richet had previously made the observation that the anesthetics which are little soluble in water possess a marked narcotic action, and he regarded this relationship as a general law. As a matter of fact, however, from this single relationship no general law can be deduced, for substances such as alcohol and chloral, which are both equally soluble in water, possess very different narcotic powers. The proper expression of the law must, therefore, be that the distribution relationship, the so-called distribution coefficient, of the narcotics between fatty and watery solutions, is the determining factor of narcotic action. To test the correctness of this hypothetical law I have determined the strength of action of a large number of different narcotic poisons by estimating the smallest molecular concentration of their solutions which was sufficient to induce narcosis of small fish and tadpoles placed in them. A second series of experiments was then carried out with the same substances for the purpose of determining their distribution coefficient between water and fat. A mixture of water and oil was used to estimate the relative quantities passing into these two substances. The comparison between the distribution coefficient so obtained and the narcotic strength of the narcotics did, as a matter of fact, yield the expected result, as a glance at the following table reveals:

TABLE SHOWING THE RELATIONS BETWEEN THE DISTRIBUTION COEFFICIENTS, F/W. AND THE CONCENTRATIONS, EXPRESSED IN GRAM MOLECULES, OF SOLUTIONS EXERTING EQUAL NARCOTIC ACTION.

	F/W.	Concentration.
Trional	4.4	0.0013
Tetranal	4.0	0.0018
Butylchloral	1.6	0.002
Sulphonal	1.1	0.006?
Bromalhydrate	0.7	0.002
Benzamid	0.6	0.002
Triacetin	0.3	0.010
Diacetin	0.23	0.015
Chloralhydrate	0.22	0.025
Aethylurethane	0.14	0.025
Monoacetin	0.06?	0.02?
Methylurethane	0.04	0.4
Aethyl alcohol	0.03	0.5

1. The amides yield fatty acids and ammonia salts, the glycerin derivatives, glycerin and acetic or hydrochloric acids.

With an increase in the distribution coefficient there occurs an almost parallel increase in the narcotic strength, that is, decrease in the molecular concentration necessary for narcosis. The few departures from the general rule which occur in the table can be explained by the naturally inexact method of estimating the narcotic power.

A further proof of the correctness of the view described may be offered. It is known that the solubility of most substances in water and fat changes in a different way with variations in temperature. The distribution coefficient is also variable according to temperature. It must be expected, then, that the narcotic strength as well will vary with changes in temperature. And this is the fact. I examined six substances, of which with higher temperature three gave higher and three lower distribution coefficients. And it was found that in exact accordance with the rise or fall of the distribution coefficient so the narcotic strength rose or fell, so that tadpoles which were just narcotized by a certain chloralhydrate solution at 30 degrees C. were aroused and quite active on cooling to 3 degrees, and on subsequently warming to from 25 to 30 degrees again passed into narcosis. From this the direct dependence of narcosis on the physical relationship of the narcotic to the fat-like substances, the lipoids of the body, and the watery constituents seems to be definitely proved.

As a result of all these studies we arrive at the following explanation of narcosis: The narcotizing substance enters into a loose physico-chemical combination with the vitally important lipoids of the cell, perhaps with the lecithin, and in so doing changes their normal relationship to the other cell constituents, through which an inhibition of the entire cell chemism results. It also becomes evident that the narcosis immediately disappears as soon as the loose, reversible combination, dependent on the solution tension, breaks up. It follows further that substances chemically absolutely indifferent, as the volatile saturated hydrocarbons, can act as narcotics.

Quite in opposition to this idea, it has been frequently put forward and accepted that the breaking up of the narcotics, with a chemical action of definite atomic groups thus set free, as the ethyl group, for instance, is responsible for the narcosis. But even in the case of sulphonal and its related sulphones, from which this idea originates, it can be shown that the action is induced by the entire unchanged molecule, and that the lack of activity of certain sulphones is due not, as is generally believed, to their not being broken up, but to a low distribution coefficient.

This simple theory also explains the fact that all structures capable of stimulation, not only the cells of the nervous system, but all others, and all plant cells as well, are depressed by the narcotic members of this series, for in all living cells lecithin, a lipoid body, is to be found. And, indeed, the establishment of the fact that the effect on the lipoids by narcotics, such as ether and chloroform, is such as to immediately inhibit the vital processes of the cell, shows us that these lipoids are among the constituents essential to the life of the cell. Moreover, by establishing this fact it seems to me that the general biologic significance of the theory becomes apparent.

That many narcotics induce not pure narcosis alone, but often show other distinct actions, as, for example, the occurrence of convulsions, which quite overshadow any narcosis present, is easily to be understood when

one remembers that the narcotics may possess an affinity not only for the cell lipoids but for other cell constituents as well, and through some union with these, concomitant effects quite different from narcosis may be induced. This occurs, for instance, in the case of the phenols, whose narcotic action is thrown into the background by the appearance of clonic spinal convulsions.

No attempt is made to explain every type of narcosis by means of the theory presented here. It is very probable that some other disturbances in chemical equilibrium can occur in the cell and inhibit the performance of its function and that substances such as morphin are narcotic through their relationship to other points of attack than the "alcohol lipoids"; and most probably the same can be said concerning the very remarkable narcosis from magnesium salts, lately discovered by Meltzer.

I desire to add in conclusion that shortly after I had published my theory of alcohol narcosis the physiologist Overten published experiments which, carried out independently of mine and from a different point of view, in fact, with somewhat different methods, brought him to an identical conclusion, i. e., to a similar theory of narcosis, so that he has confirmed my work and accepted the formulation of my theory literally. I take this as a strong and gratifying argument for the correctness of our assumption.

THE BREADTH OF THE PROFESSION OF MEDICINE.

CHAIRMAN'S ADDRESS BEFORE THE SECTION ON NERVOUS AND MENTAL DISEASES, AT THE FIFTY-SIXTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, PORTLAND, ORE., JULY 11-14, 1905.

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While the past year has been one of general progress in the specialty, there do not appear to have been any notable discoveries. I shall therefore refer in this official address to other matters that may be of interest.

In the development of medicine, as elsewhere in the growth of knowledge, investigations that have important results are rare and great discoveries are rarer still. We can not expect that progress shall be a steady onward movement, for of necessity it is irregular. The spiral stair, to use Emerson's phrase, is the law of all growth. All knowledge has had far origins and has come to us by devious paths; there have been pauses, lapses, rests and infinite failures before the goal was reached. I refer to this because in our day we are expectant and a little anxious, if not impatient, that rapid advance be made in medical knowledge, and because of this medical men have sometimes in the past hastily accepted discoveries without waiting for the test of time and use.

It is fortunate that the profession is now more intelligently critical than formerly of the work of investigators. The physician is an optimist, and the past justifies him in his attitude. Professionally, he is the lineal descendant of men who, in more primitive times, claimed to cure disease by charms and incantations and the laying on of hands. Though he knows, for instance, that the professional forbears of the astronomers were the simple Chaldean shepherds of four thousand years ago, and that all science had a like rude beginning, yet he holds that progress in medicine has been quite as great as that of any science.

There is some danger, however, that he will accept as demonstrated fact, the guesses of investigators in whom imagination may be more active than judgment. Fortunately, however, the investigator of to-day appeals to a more critical audience. Every claim to a discovery is now passed on by what is practically a technical board, where the always necessary test of criticism is applied and that which is valuable is saved.

Every physician should be an original investigator; it is one of the obligations of his calling. Medical practice daily offers opportunities for original research. The great experimenters have done much for the advancement of medicine, but the great practitioners and surgeons have done more. There is no better laboratory than the bedside. The most elaborate equipment for scientific medical investigation is a small affair in comparison to the opportunities of the sick room. The laboratory may suggest, confirm or explain, but it must always be secondary to bedside study. If we are ever able to cut our way through the jungle of problems that human disease presents, we will accomplish it chiefly by the study of the sick, or to use John Locke's splendid phrase, "by the study of the natural history of disease." It is through this bedside study that progress in neurology has chiefly been made, helpful though experimental work has been. As experimental physiology has gone about as far, in this regard, as it can at present, progress in the immediate future will probably be chiefly due to clinical investigation.

It is primarily the business of the physician to prevent and cure disease. The greatest triumphs of the future will doubtless be in the line of prevention, but it is probable also that therapeutics will always be in vogue. If one might judge from the small number of papers contributed to this Section from year to year on the subject of therapeutics, our members are not specially interested in the subject. Four years ago the chairman called attention to this and urged a greater interest in therapeutics, but it does not appear that there has been any increase of interest in the subject by the members of this Section since that criticism was made.

It is hardly possible that we have reached the limit in the application of remedies in the treatment of dis ease of the nervous system. If the members of this Section could carry on a collective investigation, extending over two or three years on any one of several subjects, the results might be valuable. Notwithstanding the volumes that have been written on the applications of hydrotherapy to nervous diseases, there are yet many obscure points to be investigated, and collective investigation along this line alone could be made profitable.

It is pre-eminently true of nervous and mental diseases that therapeutics is not a thing of drugs only. Aside from seclusion, rest, exercise and hydrotherapy, which are now part of the therapeutics of nervous diseases, the future will undoubtedly disclose remedial measures, other than drugs, that will be of value. We now emphasize the importance of all those things that make up, not alone the physical but the psychical environment of the individual; more and more we see that the cure of the nervously disordered is not so much by drugs as by the influences which we may bring to act on the psychic side of the patient's life. Rest and seclusion in neurasthenia and proper environment, muscle drill and rest in tabes, kindness and diversion in insanity are great advances over the treatment of a generation ago, though we are probably at the beginning of this larger view of therapeutics in these and other disorders.

Quacks and charlatans have made such prominent and noisy pretense of skill in the way of utilizing the mental life as an aid in treatment that reputable physicians have hesitated to claim any interest or confidence in it. It is, too, a phase of treatment that is particularly liable to misconception, abuse and over-statement.

It is possible, I admit, however, with hesitation, that there is a place in medical practice for systematic mental therapeutics, and if proper attention were paid to it, it might result in it being taken out of the hands of mental healers and their like, as the profession took surgery out of the hands of barbers and pretenders.

All such departures from accepted methods, the breaking away from the conservatisms and practices of the past, are not easy, but it is desirable that we consider it without prejudice.

It is not long since the use of both electricity and hydrotherapy were practically under the ban of the profession, and yet to-day they are among the most valuable remedies that we have.

From a fairly intimate professional acquaintance with myself, I should say that members of our specialty are liable to become narrow in their views of general medical practice, and yet there is no specialty where it is more important that the physician be well informed in general medicine and quick to recognize the possible relations of nervous and mental diseases to any and all morbid conditions. The alienist and neurologist should be first a good general practitioner, and if he is not he will fall short of what the specialty demands.

All this requires that the physician should not only be a progressive man, but an opportunist, ready to take advantage of any and all methods and means that will help to cure disease. Medicine is first an art, and only by courtesy of charitable qualification can it be called a science. This animal body is too intricate a structure and complex and variable in function to permit as yet of its morbid perversions being brought within the exact order that a science demands.

It is all the more important, therefore, that the physician be an open-minded and progressive man, for he is simply a seeker after the best means to accomplish an immediate end, and is free to use any means that he can command that bring results.

There is no profession whose members are less trammeled by precedent, tradition or prejudice than ours. Our code of ethics is the code of a square deal. Our only creed is that of the gentleman. Every physician is free to choose his methods and remedies. No decisions and no precedents limit the applications of his logic, no councils instruct him where he shall go for facts. He can go contrary to all usages and introduce revolutionary methods, and the profession welcomes his work, if only it is justified by results.

It is not to the discredit, it is to the glory of medicine, that it changes. The world of knowledge grows; sciences are forever being reconstituted, and medicine must meet the demands of change and growth. We systematize our observations and call them science, but methods change, observations are made by newer and better methods, new facts come to replace and modify those we have, old remedies are abandoned, old theories are recast, and by this incessant change and rearrangement we attain to accuracy and definiteness.

Nearly two thousand years ago a Roman physician said that there seemed to be nothing left for the future physician to discover. The man who has always lived on a little island and has had no news of other lands may be excused for thinking that the ocean washes no shores but his. This Roman doctor in relation to science lived on an island, and even this has shrunk to a microscopic speck on the map of later knowledge. What he called medical science and considered final, has for us only an archeologic interest; of that primitive structure of knowledge which he helped to rear, we have hardly left one stone on another. We realize as true what he did not suspect, that human knowledge is always in the making; that there is no finality possible for us, for from the very necessity of existence we are subject to incessant change. We must, decade after decade, look out from other heights, rearrange our facts, reconstruct our knowledge and reconstitute our best philosophy.

In spite of all the discoveries of medicine, in spite of all the facts that physicians have put in tomes, we are yet at the beginning of what medicine will be; we are explorers who have but touched the capes and promontories of an unknown continent.

Every doctor who stands for progress and values principle above the transient results of mere success is a contributor to the growth of medicine in the best sense. Anyone who demonstrates a new fact has raised the level of knowledge and added to the momentum of our advance. The articles that we contribute and the discussions we have here, may be of transient value, but if the work is done in the right spirit it stimulates to effort and helps to maintain that enthusiasm that is in a large measure the motive power of all progress.

Everyone should come here with his best thought, and if he is wise, he will go away with his ideas changed and clarified and with new interest and increased power for good.

We must rank among our greatest helpers, not alone those who teach us most, but those also who inspire us most, for if it is the inspirers of men who have been the chief instruments of progress.

May we all receive such inspiration when we come here as will help us to be true to the highest ideals of our profession, and in company with all who hope and strive and care, even we in our humble lives may illustrate the best traditions of our profession.

Suprarenal Treatment of Cancer.—Berdier and Falabert presented a communication to the last Latin-American Medical Congress relating the excellent results attained in a number of cases of cancer by local injections of extract of the suprarenals. Under the injections and local applications of the extract the tumor and the glands in the vicinity became reduced in size, while the pains subsided and the patients gained in weight and strength and felt generally much better. Patients who had been unable to get relief from pain except with morphin found that the pains vanished under this local treatment. They say that some connection between the suprarenals and the evolution of cancer seems a plausible assumption from the facts observed. In a case of cancer of the rhino-pharynx, in a man of 52, .5 mg. of adrenalin was injected into the most accessible part of the growth, this injection repeated daily. By the fifth day the patient's deafness had much improved and the growth had commenced to subside. After a dozen injections, in the course of a month or so, the patient was restored to apparent health, with scarcely a trace left of the tumor in his throat, and he has been in good health since. In other cases the relief of the pain by the injections was notable, even when the cancer was too far advanced for treatment to be more than palliative. When the cancer was in the stomach or other internal organ, the suprarenal extract was injected into the arm. The article is given in full in the *Escuela de Medicana*, of Mexico, for Dec. 31, 1905. Histologic examination of the growth was not made in every case.

Original Articles

THE RHYTHMIC SOUNDS OF THE ALIMENTARY CANAL.*

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The sounds produced by the alimentary canal were noted by the Father of Medicine, who is said to have first used the term "borborygmus" to describe the loud rumbles arising in the abdomen. In later times little discriminating attention has been paid to abdominal sounds. Hooker[1] published an essay in 1849 in which he describes more or less alteration in the intensity of the sounds made by the alimentary canal in different diseases of the digestive organs. Other writers have classified the sounds normally audible into splashings, rattling or rustling noises, the murmurs of respiration and of the aorta.[2]

These sounds, however, according to L. Bernard,[3] are not constant over the abdominal organs, nor do the sounds characteristic of the healthy individual alter in pathologic conditions. Little else than these statements is found in the most recent treatises on auscultation. Rubbing noises are mentioned in cases of inflammation, and piping notes when there is stenosis of the intestine. More than this is not stated.[4] Any special attention to the qualities of certain sounds in the general confusion of noises in the abdomen was hardly to be expected so long as the character of the movements of the stomach and intestines was not thoroughly known.

Within a few years the nature of the motor activities of the alimentary canal has been definitely determined,[5] and this new knowledge should make possible an association between the motor activities and the sounds attendant on them.

The most characteristic feature of the movements of the alimentary canal is undoubtedly their *rhythmicity*. Over the stomach peristaltic waves pass in rhythmic succession; in the small intestine the most usual activity is a rhythmic segmentation of the food; and in the ascending colon antiperistaltic waves, during short periods, rhythmically follow one another toward the cecum. The most favorable condition for the production of sounds in the alimentary canal is the presence of gas of some sort mixed with the more or less fluid food. When the food and the gas are churned together a sound must result. It is possible to introduce air in fine division with the food by eating, along with other food, a cheese soufflé, toast slightly chewed, very porous bread, or a fluffy omelette. When such food is taken, and frequently after ordinary meals, rhythmic sounds can be heard over the pyloric end of the stomach and later over the lower part of the abdomen.

In listening to these sounds I have made use of a Bowles stethoscope with a rubber tube long enough to permit the hard rubber disc to lie at any point on the abdomen. It has been my custom during the past few months to keep the stethoscope at the head of my bed, and when unable to sleep I have amused myself by listening to the sounds produced by the digestive organs. At times in the quiet of the night it is possible to hear the sounds without the stethoscope. Sometimes the vibrations produced are so strong that they can be perceived, like the tactile fremitus of the chest, by placing the hand over the region in which the sound arises. The rhythmic sounds are not due to respiration; they differ in rate and in time from the respiratory movements. They are not due, as a listener might at first suppose, to the arbitrary choice of a rate and the selection of such sounds out of the confusion as occur at the proper time to make the rate good. I have been able to eliminate entirely the personal element from the registering of these sounds. By means of a telephone transmitter placed over the abdomen and activating, through an induction coil, a nerve-muscle preparation, I have secured graphic records of the sounds made by the stomach and small intestine wholly without the mediation of human judgment. This method was used by Hürthle[6] in recording the heart sounds.

THE SOUNDS OF THE STOMACH.

The active end of the stomach is the pyloric end. The food is pushed by peristaltic waves moving toward the pylorus. If the pylorus does not relax as the ring of constriction approaches, the only escape for the food is away from the pylorus through the advancing ring. As the waves are recurring continuously and the pylorus relaxes only occasionally, the food near the pylorus must be squeezed and regurgitated by almost every constriction ring. And the food escaping through the narrow orifice must, if mixed with gas, produce a sound. Since the pyloric end of the stomach reaches farther to the right and to the front than any other part, it is clear that lying on the left side of the body, or on the back and left side, will bring the pyloric end uppermost. When the stomach is so situated, the lighter food, i. e., food mixed with gas, will naturally rise into the pyloric end, and peristaltic waves, for reasons already stated, will then cause sounds to appear. Sounds heard recurring regularly when the person listened to was on the left side, entirely disappeared or became very faint when the person turned so that the pyloric end became lowermost.

The stomach sounds can best be heard after a somewhat bountiful meal, as, for example, an hour after dinner in the evening. The disc of the stethoscope should be placed near the end of the eighth rib on the right side. The sounds heard are usually loud, rattling, explosive and of characteristic quality. At times the sounds may last several seconds. In some persons they are louder and more regular in their occurrence than in others. The rate of recurrence of the gastric sounds varies in the neighborhood of one sound every 20 seconds. In one person the rate was strikingly regular, one sound every 17 seconds, in another every 22 seconds, and in another every 23 to 24 seconds. That these sounds are a true indication of gastric peristalsis is confirmed by the observations of Moritz,[7] who recorded a rhythmic increase of intragastric pressure in the pyloric end of his stomach at twenty-second intervals.

Fig. 1 is the copy of a record, secured by the telephone method previously mentioned, which shows graphically many of the features of the stomach sounds. The different heights of the separate marks indicate variations in the intensity of the sounds. The duration of the sounds also can be judged: for example, at *c* and *e* they are more prolonged than before *a*. One of the pop sounds, heard in all parts of the abdomen, is recorded

* Read in the Section on Pathology and Physiology of the American Medical Association, at the Fifty-sixth Annual Session, July, 1905.

1. Hooker: Boston Med. and Surg. Journal, 1849, xl, pp. 409 and 439.
2. Winkel: Jahresbericht der Gesellschaft für Natur. und Heilkunde in Dresden, Sitzung, Dec. 6, 1873.
3. Bernard, L.: "Zur Auscultation des Abdomens," Inaugural Dissertation, Würzburg, 1879.
4. Eulenberg, Kolle and Weintraud: Lehrbuch der klinischen Untersuchungs-Methoden, Berlin and Vienna, 1904, I, p. 691.
5. For literature see article by Cannon: Medical News, May 20, 1905.
6. Hürthle: Archiv. für die gesammte Physiologie, 1905, vol. lxi, p. 264.
7. Moritz: Zeitschrift für Biologie, 1895, xxxii, p. 313.

at *a*. Silent intervals, which occur occasionally, are indicated in the regions *b, d* and *f*. In these regions arrows have been placed at the points where the sounds would have recorded if present. The regular rhythm is resumed in continuation of the previous rhythm. It should not be supposed that the silent intervals are always as frequent as this record shows them; I have one tracing in which the marks are not only rhythmically regular, but of almost the same height, uninterruptedly for fifteen minutes.

THE SOUNDS OF THE SMALL INTESTINE.

The possibility of making use of the sounds attending movements of the alimentary canal was suggested by hearing rhythmic sounds as, in an anesthetized cat with opened abdomen, I watched the rhythmic segmenting movements of the small intestine.[8] With each contraction on the circular fibers the enclosed food was squeezed into the region of the former intermediate constrictions, and the sound then recurred. I have observed these rhythmic movements of the small intestine not only in the cat, but in the dog and rat. They occur at a more rapid rate than the stomach movements. In the cat the stomach movements are seen 4 to 6 per minute, the segmenting movements sometimes 18 to 21, sometimes 28 to 30 per minute.

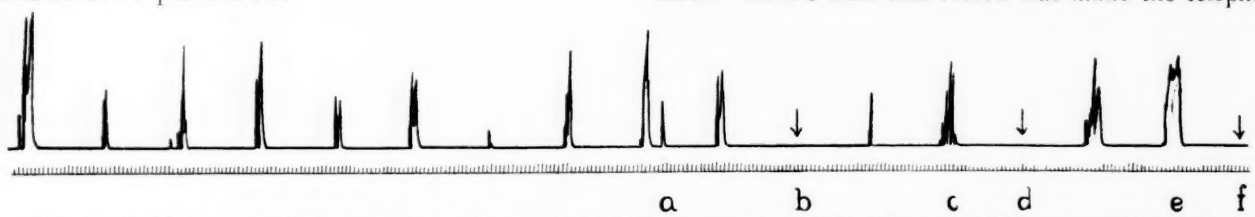

Fig. 1.—Graphic record of the stomach sounds secured by placing over the pyloric region a telephone transmitter activating a nerve-muscle preparation. The time is marked in seconds.

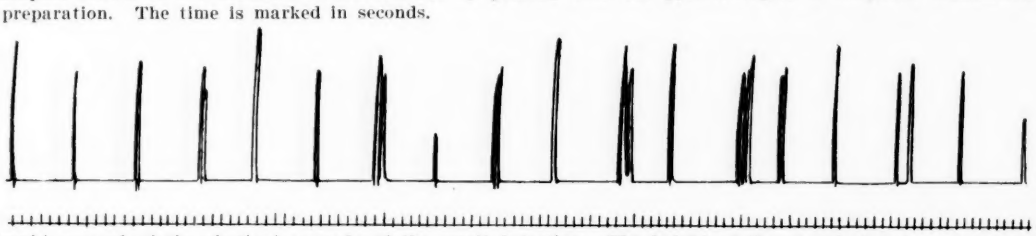

Fig. 2.—Graphic record of the rhythmic sounds of the small intestine. The height of the records has been reduced to about one-fourth the original size. The time is marked in seconds.

Usually listening over the lower abdomen, especially over the right lower quadrant, during the height of digestion, reveals a great confusion of noises. It is unsafe to attempt to distinguish for the first time the rhythm of the small intestine in the midst of this chaos. It is much better to listen at first in the night, or, better still, an hour or two after awakening in the morning and before breakfast. The stomach is then producing no sounds, and by placing the disc of the stethoscope in the lower left quadrant the active part of the large intestine is avoided.

The rhythmic sounds of the small intestine are very different from the gushing, explosive sounds of the stomach. The rhythmic sounds vary in quality; sometimes a soft, muffled rustling; sometimes a group of little, rattling, explosive discharges, and sometimes a rough rolling rumble like miniature thunder. But with these variations there are three features that are quite distinctive. The first of these is the slow crescendo, followed by a diminuendo in the sound, so that each sound lasts two or three seconds or more; the second characteristic is the persistence of the rhythm for some time in one place—it does not move on as a peristaltic wave would move; and the third feature is the distinctive rate, which is usually one sound every 7 or 8 seconds. I have heard the sounds only 4 or 5 seconds apart and at times even 10 seconds apart, but the common interval is 7 or 8 seconds. This fact and the rate of gastric peristalsis as determined by this method I reported before the American Gastroenterological Association, April 24, 1905.[9]

In the morning, after an ample dinner the previous evening I have heard these rhythmic sounds continue for more than an hour and a half without interruption. They are not peculiar to the morning hours, though they are most clearly distinguished at that time. After learning their character I have heard them clearly in the midst of active digestion in the afternoon.

A record of the rhythmic sounds of the small intestine, secured by the method already mentioned, is shown in Figure 2. It is a record of sounds heard before breakfast one morning about half-past nine o'clock. The dinner at six o'clock the previous evening consisted of grape fruit, mackerel, potato, cucumber and tomato salad, four slices of bread and butter, and strawberries and cream with cocoanut cakes. About ten o'clock in the evening four slices of bread and butter and a glass of milk were taken. At the time this record was made the telephone transmitter was placed on the lower left quadrant of the abdomen. The duration of the sounds is not indicated, since the muscle recorded in each case only at the climax of intensity.

THE SOUND OF THE LARGE INTESTINE.

The antiperistalsis of the proximal portion of the large intestine was incidentally observed in the cat by Jacobj[10] in 1890 during a research on colchicum poisoning. In 1902 this activity of the large intestine was established as the normal activity in the undisturbed animal by observations with the Roentgen rays.[11] In 1904 Elliott and Barclay-Smith[12] confirmed these observations on the cat and found that in the rat and guinea-pig, and to a slight extent in the rabbit, hedgehog and ferret, antiperistalsis was present in the proximal colon. They also found in the herbivorous animals they studied that sacculation of the proximal colon was associated with churning movements, each sacculus becoming at times the seat of swaying oscillations. The greater the churning activity of the proximal colon the more marked

8. Cannon: Amer. Jour. of Physiology, 1902, vi, p. 259.

9. Medical News, May 20, 1905.

10. Jacobj: Archiv. für experimentelle Pathologie und Pharmakologie, 1890, xxvii, p. 147.

11. Cannon: American Jour. of Phy., 1902, vol. vi, p. 265.

12. Elliott and Barclay-Smith: Jour. of Phy., 1904, vol. xxxi, p. 272.

churning activity of the proximal colon the more marked was the sacculation of its wall. The colon of man is of the sacculated herbivorous, rather than of the carnivorous type. The sign of a proximal colon which mixes and churns its contained food is a uniform soft consistency of the contents. In the human being this condition is realized only in the cecum and ascending colon; the contents of the transverse colon are generally as firm as those of the rectum.[13] Elliott and Barclay-Smith assumed, therefore, that in man the food entering the proximal colon "is still delayed by a backward current, still commingled by the activity of the walls of the sacculi."

The greater activity in the right lower quadrant of the abdomen is manifested at times by an almost constant succession of little popping noises and faint gurglings when the left lower quadrant is quite silent. In spite, however, of listening in the region of the cecum for hours, at different times of the day, and with my body in various positions, a uniform and characteristic rhythm of the sounds in this region, if it be present, has escaped me. Sounds of a coarse rumbling character somewhat like those of the stomach, but usually more prolonged, are audible at times. These sounds were once heard recurring regularly for a short period at intervals of about 20 seconds. More commonly in my experience such irregular intervals as these—45, 25, 35, 27, 25, 14 and 29 seconds—are observable. Inasmuch as these sounds are not clearly rhythmic it seems questionable whether they are produced in only one part of the intestine. These gurglings are heard loudest along the ascending and transverse colon, and for that reason are probably due to activities of the large bowel.[14]

Enemata of starch and a little flour boiled in normal salt solution, stirred into a froth much like soapsuds, and introduced at body temperature in amounts varying between 1500 c.c. and 3000 c.c., if the body is kept horizontal, can be retained for a half hour or more without difficulty. During this time there are repeated pains or cramps referred most commonly to the region of the hepatic flexure of the colon. They are very distinct and quite unmistakable in their character. It is remarkable that these recurring cramps, which are undoubtedly due to contractions of the intestine, are ordinarily not felt in the descending colon, sigmoid flexure, or rectum, but are restricted to the proximal colon, the region which in the lower animals is characterized by the greatest ac-

The contractions attending the pains are not expulsive. Nor do they seem to move backward from the part in which they are felt, for no sound is audible over the cecum either during the pain in the hepatic flexure or after it has disappeared. The contractions apparently occur again and again in the same region without moving in either direction. I have observed[8] in the cat such repeated circular contractions of the proximal colon, but they are not usual.

The recurrent pains ordinarily last from 6 to 8 seconds, increasing gradually in intensity until just before the end. They are commonly attended by gurgling noises, audible as the cramp is passing away. The cramps have been observed succeeding one another for nearly 10 minutes at intervals varying between 19 and 22 seconds, but in my experience they are not ordinarily so regular as this. The following figures, representing in seconds the time between the onset of successive cramps, illustrate the usual rather irregular recurrence of the contractions:

28	39	22	43
47	35	15	42
35	15	25	40
32	15	50	43
23	18	40	54
41	35	25	37

From evidence secured by auscultation and sensations of cramp, it seems certain that the ascending and first part of the transverse colon are more active than the remainder of the large intestine. That there is an antiperistalsis in this more active region is not yet established. As already mentioned, Elliott and Barclay-Smith have found that such sacculation as occurs in the human colon is associated with emphasized churning activity of the walls of the sacculi. In repeating their observations on the guinea-pig and rabbit I have seen oscillating movements of single sacculi, now here, now there, or of many sacculi at the same time, each contracting repeatedly, squeezing out the contents of the pouch, crowding full the neighboring pouches which in turn become active, then relaxing, filling, and discharging, again and again, till the food is thoroughly churned. Such a process could not be attended by a clearly marked rhythm—too many little activities are going on at the same time. These little activities would naturally be attended by the continuous popping noises and the slight gurglings which are heard at times over the ascending colon. Is it not likely that in man oscillating contractions of the walls of the sacculi, rather than antiperistalsis, is the prominent operation of the proximal large intestine? In accord with this suggestion is the observation above mentioned that the pains in the colon occur repeatedly in the same region, and do not spread to neighboring parts.

A characteristic sound, not periodic, which is audible at times along the transverse and descending colon is a progression of little crackling noises like the breaking of minute bubbles. The sound starts in the transverse colon and its advance can be clearly traced. If the disc of the stethoscope lies over the splenic flexure the crackling can be heard first faintly, then louder and louder, then gradually more faintly again, and if after the climax of intensity there the stethoscope is changed to a position farther along the large intestine the sound can again be heard passing through the same phases as before. This sound is likely to be followed immediately by a tendency to pass gas from the bowel.

VALUE OF THESE DATA.

To one listening for the first time for rhythmic abdominal sounds, probably the most striking feature of what he hears is the large number of sounds which are not rhythmic. Most prominent among these irregular sounds are the sudden quick discharges or pops which can be heard, either singly or in a short series of three or four, almost at all times and in all parts of the abdomen, though most frequently on the right side. As already stated, these reports resemble the sound of bursting bubbles, and it may be that they are caused by the squeezing of gas from a mass of the food by general pressure of the intestinal wall. Occasionally a continuous little gurgling can be heard for some moments, gradually becoming less intense. It seems probable that peristalsis in the small intestine is thus manifested.

Whether the observation of the sounds of the stomach and intestines is to be of clinical importance will depend on whether or not there are typical variations of these sounds in different diseases of the alimentary

13. Roith: Merkel and Bonnet's Arbeiten, 1903, vol. xx, p. 32.

14. Dr. S. J. Meltzer, in an article on the sounds of swallowing, in Berl. klin. Wochft., 1884, No. 30, mentions certain loud noises which he heard in the region of the liver and which he attributed to the passage of food through the pylorus. Inasmuch as loud sounds not falling into the gastric rhythm are heard in this region it is impossible to be certain that what he heard were really *Pylorusgeräusche*.

canal. The observations here recorded, made chiefly on myself, have been confirmed on other normal individuals. No attempt has been made to study the sounds produced in abnormal conditions. It has occurred to me that the method might be used to separate the somewhat vague expression "motor insufficiency" into its two factors, absence of peristalsis and pyloric obstruction. Evidently if sounds recur in regular rhythm at the pylorus, and food remains in the stomach, the so-called "motor insufficiency" is due not to absence of peristalsis, but to difficulty at the pylorus. This is only one of the applications which the method may have. In such disorders as gastritis, nervous dyspepsia, atony, colic, peritonitis and dysentery a study of the sounds produced by the movements of the alimentary canal, both before and after the administration of drugs, may reveal facts important to the clinician.

REST IN PULMONARY TUBERCULOSIS.

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I wish to make a plea addressed to the general practitioner for the routine employment of rest in the open air in all active or partially arrested cases of tuberculosis. In the vast majority of cases the general practitioner is the man who is called on to diagnose and to treat these patients, and as he has been lectured, criticized and cajoled into making an early diagnosis only to meet with failure in the treatment, I do not think it amiss to point out the error that is responsible for failure, in nine times out of ten in otherwise curable cases, viz., exercise. Even to-day, with the overwhelming proof of the curability of this disease, many physicians say that they do not believe it can be cured, while others say that it can be cured only in sanatoria. When the details of their treatment are gone into it will be found that the greatest mistake is in indiscriminate exercise and lack of proper supervision. This unfortunate experience has bred indifference till at the present time the physician in general practice advises a change of climate, and when this is impossible, which is so often the case, quietly folds his hands, gives an unfavorable prognosis and leaves the unhappy victim to his fate. Let it be distinctly understood that I am not advocating rest to the exclusion of any other means that we possess to combat this disease. Food, personal hygiene, hydrotherapy and strict supervision should be used in the effort to effect a cure.

HISTORY OF THE REST CURE.

Dettweiler of Falkenstein, a student of Brehmer, originated the rest cure in the open air. Having seen the failures in the practice of Brehmer, who ordered all patients not bed-ridden to indulge in systematic walking, he advised the rest treatment, and is as enthusiastic regarding its virtues to-day as he ever was. This method of treatment has been denounced by Nauman and Freudenthal, but nevertheless it is recognized as an indispensable aid in the treatment of this disease by the best clinicians the world over.

MODE OF ADMINISTRATION.

If possible all patients running a temperature of 101 F. or over should be put to bed on a piazza connecting with a room by a door or large window. With this arrangement the patient can be brought in the room, which should be comfortably warm, for his meals, and to be bathed, etc. In the afebrile cases or in those patients with a maximum temperature of 101 F. or less, the patient should sleep out of doors or in a large room with the windows open. At 7 a. m. he should be dressed with as little effort on his part as possible, have his breakfast and be out in the open air by 8 a. m., where he sits warmly wrapped in blankets in a comfortable, reclining chair or hammock till noon, when he has his luncheon. After luncheon he is allowed an hour's repose, when he again goes out to remain till 6 p. m. After the evening meal he can stay in the house and enjoy a card game, music or light reading till 8 p. m., when he goes to bed. If properly clothed and wrapped in blankets while sitting out doors the patient will be comfortable in the coldest weather. There is absolutely no danger from colds, bronchitis or pneumonia, as is often supposed from this mode of treatment; in fact, there is less liability to these troubles out of doors than in the house.

PHYSIOLOGIC EFFECTS OF REST.

In rest in the open air we possess a means that has no equal for the good and lasting influence it exerts on the fever of tuberculosis. Agglutinins, anti-toxic and bacteriolytic substances are formed much faster in tuberculosis with the patient at rest than when he is active, which accounts for the decline in the temperature and the diminished activity of the bacilli at the site of the local lesion. Given a case with fever that does not show a decided decline after a period of two weeks of rest, the prognosis is bad. The pulse soon returns to its normal force and frequency, when the patient is at rest. The red blood corpuscles and hemoglobin increase, and in cases with marked anemic onset this increase is often very rapid. The appetite, nutrition and digestion improve; the nitrogen absorption and retention are both increased. The patient experiences a sense of well-being; he feels stronger and better in every way and despair gives way to hope as each day sees a step gained toward vigor and health. The weight rapidly increases.

It is generally supposed that forced feeding is contraindicated in the rest cure, that the patient will suffer from autointoxication, anorexia, diarrhea and loss of appetite, as he certainly would in health, but in tuberculosis the opposite is the case. When active exercise is taken the patient does suffer from autointoxication and fatigue toxins, which evidence themselves by febrile phenomena. At the present time I have a patient, 25 years old, with extensive disease of the right lung, who is taking 36 raw eggs and a gallon of milk, besides his three regular meals, each day. He has gained 47 pounds in weight in three months. During all this time he has been kept perfectly quiet. He has suffered no inconvenience from this enormous quantity of food and says he feels perfectly well. His fever has gone, cough and expectoration are much less, and with proper care I have no doubt but that he will entirely recover.

GENERAL REMARKS.

A safe rule to follow is to keep the patient quiet till every sign and symptom of the disease have disappeared and as long afterward as circumstances and necessity will permit. In the light of my experience in the treatment of this malady exercise has no place in the treatment, and should be allowed only when the arrest or cure has been attained and not then with the expectation of doing any good, but with the desire that the patient return to the full enjoyment of life. The advocates of active exercise say that it improves nutrition, hastens the healing of the local lesion and acts as a hardening process, but is

this the case? As a rule, patients at absolute rest in the open air will take more food, digest it better and gain flesh and strength faster than similar patients taking exercise. The action of exercise on the local process according to Bernheim, is an active congestion in the region of the tuberculous focus and often new tears in the old adhesions, mobilization of the bacilli, thoracic pain and sometimes hemorrhage or the unexpected occurrence of the pneumothorax. Osler says: "Make the patient fat and the local disease will take care of itself."

In the light of this statement, which is certainly correct, why should we prescribe forced feeding for a patient and then allow him to use all his energy taking exercise instead of in combating the disease? How often we see patients who have been kept quiet in the open air and have grown fat and healthy looking, with a marked decrease or complete cessation of all their symptoms, relapse when they begin to take active exercise. This very fact is the great bar to the successful treatment of the patients of the working classes; necessity compels them to return to their work, which means exercise and often a lighting up of their old trouble. Exercise from choice has no place in the treatment of pulmonary tuberculosis and is permissible only when necessity demands it.

It can be urged against this rather radical course that the moral effect on the patients will be bad and that some freedom should be allowed in the way of outdoor games, such as baseball or golf. This can be overcome by explaining to the patient that with absolute quietude that time occupied in effecting a cure will be much shorter, the results more permanent, and that there will be less liability to such accidents as hemorrhage or secondary infections. A good moral effect can be produced by short carriage rides, card games and light reading. Tuberculous patients are very susceptible to encouragement and argument, and with a little explanation in regard to rest and exercise they soon fall into the "rest habit," and will be loath to begin exercise when permitted by the medical attendant. I have never known rest, no difference how prolonged, to do any harm, while exercise brings more tuberculous patients to grief than all other things combined.

THE VALUE OF HYDROTHERAPY IN THE TREATMENT OF EPILEPSY.*

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The position of hydrotherapy in the treatment of epilepsy may be considered as a means of cure; an auxiliary method of treatment; a method making it possible to administer considerably larger doses of bromids than usual; a method rendering it possible to reduce the dose of bromid to a minimum; and, finally, as an excellent hygienic measure favoring the action of the skin and improving the general tone.

As a cure *per se* hydrotherapy is probably like all other medicines—it has been tried and found wanting. Notwithstanding the fact that the means employed consist of water, cold, warm or hot, in tubs, douches, sprays, vapor baths, hot air baths and compresses, a method permitting the widest variations in the form of treatment, it probably has rarely, if ever, cured, in and of itself, a case of genuine epilepsy. Cases have been reported cured, as is so frequently done after surgical methods such as trephining, but further investigation shows that there has been some error in diagnosis, the case being one of hysteria, or that relapses have occurred.

A few French authors have advocated hydrotherapy since Fleury in 1875 published his treatise[1] on the subject. Winternitz and his school have declared that hydrotherapy in epilepsy employed exclusively produces no effect. On the other hand, some of the more recent German publications look on the subject more favorably. Schweinburg in his recent work[2] cites a patient, a college student, who took under his direction "half baths" for a year and later entered official life and has remained well for sixteen years. Schweinburg says that this is not the only similar case in his experience, but, of course, he pays very strict attention to the diet, and he notes that when the epileptic is ordered a combination of hydrotherapy with a rigid dietary the epileptic attacks diminish with very little bromid, so that there is a reduction from six to eight grams daily to one or two grams. Long intervals free from attacks are obtained and a general improvement in the mental and physical condition is noted.

The procedure adopted at first was the half bath of 27.5 C. (81.5 F.) to 30 C. (86 F), with affusions and strong rubbing for five or six minutes once or twice daily. Before applying water of lower temperature or more energetic measures such as douches, slapping or in using the high temperatures there should be caution, for attacks have occurred during the application of extreme temperatures.[3] Wet packs, foot baths and cold compresses to the head are useful after severe attacks. No unpleasant results have been noted, no increase in the number of attacks, even in the most unfavorable cases. Schweinburg considers the combined hydrotherapeutic and dietetic method more as a school for patients who thus learn the principles and practice of hygienic treatment to be followed during the coming years.

Pick maintains much the same position in holding that with hydrotherapy we can employ considerably smaller doses of the bromid than when the latter is given alone. Pick employs during the interval between the attacks the so-called half baths of 27 C. (80.5 F.) to 30 C. (86 F.) and of eight to fifteen minutes duration, as well as sitz baths and trunk compresses or the so-called "Neptune's Girdle." Without necessarily the expectation of a cure he uses systematic hydrotherapy so as to promote the action of the skin or as a mode of treatment auxiliary to other measures.

Binswanger advises in this connection a mild hydrotherapy as usually adopted in the general treatment of neurasthenia; also a daily bath, using water gradually cooled to 15 C. (59 F.), indifferent baths two or three times a week with or without the addition of salt or affusions at 20 C. (68 F.). For young and vigorous subjects he advises cool or cold baths of only a few minutes duration. The temperature should be about 24 C. (75 F.) and gradually cooled, according to the state of health of the patient, to 20 C. (68 F.). Binswanger employs these cool baths especially during the first weeks of the use of Flechsig's treatment.

Eulenberg recognizes in such measures a wide applicability to raising nutrition and improving the skin, al-

*Read at the Fifth Annual Meeting of the National Association for the Study of Epilepsy and the Care and Treatment of Epileptics, New York City, Nov. 29, 1905.

1. Traité thérapeutique et critique d'hydrothérapie, Paris, 1875; also P. Bricon, Thesis, 1881, from Bournonville's service at Bicêtre.
2. Handbuch d' allegemeinen u Speziellen Hydrotherapie, Wiesbaden, 1904.
3. Binswanger, Nothnagel's Speziellen Pathologie. Breitung, Deutsch Med. Woch., 1898, No. 39.

most never disappointing, especially in bad cases of bromism. He uses the spinal ice bag when the methods referred to are not permissible.

Matthes[4] of Jena takes a very conservative position, making use of hydrotherapy only for a good effect on the skin and an increase of the bodily vigor. This is especially necessary during treatment with bromids and should be adopted so as to obviate as much as possible bromid acne. He uses indifferent baths, that is, at about the body temperature, three times a week and also the more refreshing procedures such as the wet sheet rub (abreibung) and half baths. During the attack treatment with ice caps, stimulating compresses or diverting methods, such as slapping the feet with cold cloths, are useless. He holds that the action of hydrotherapy in epilepsy, whether for preventing attacks or rendering them less frequent, rests on a very slender foundation.

As we all know, bromids often do harm in the treatment of epilepsy. In any large institution such as Sonyea, where 2,000 cases have been treated and carefully studied, this difficulty is well recognized and the average dose employed is about one gram daily. At Bielefeld the dose is about three grams daily. In France rather larger doses are given; Feré and Jarnot have used from twelve to sixteen grams daily in special cases.

Among the earlier symptoms are acne and physical depression; later a decidedly weakened action of the heart amounting to chronic cardiac asthenia; ptosis of the lids and even inability to walk. In extreme cases in which the dose is very large or the patient unusually impressed by the drug there may be disturbances of memory and suicidal or homicidal tendencies. I have seen an epileptic patient in an outburst of passion at a a fancied wrong, attack a resident physician with great violence. Such cases have been recorded by Echeverria,[5] Weir Mitchell and others.

We would, therefore, welcome any method that will enable us to use these larger doses with safety to the skin and to the mental equilibrium. Just as warm baths and other hydrotherapeutic procedures undoubtedly enable us to administer potassium iodid in large doses with safety and increased efficacy so I believe that with the help of baths the bromids will be better borne.

As to any ill effects from the use of baths I have knowledge of only one instance in which an attack occurred while bathing. This was in the case of a young man who for nearly a fortnight had been swimming and diving in a large enclosed swimming pool. Although in water beyond his depth, he had his convulsion at the surface and was soon brought by friends to a place of safety. The temperature of the water was about 78 F. and there is no reason to believe that the water had any special influence in causing the attack.

In America attention was first called to the value of hydrotherapy in epilepsy by Dr. Simon Baruch and later by the late Dr. G. W. Foster, one of the physicians at the Government Hospital for the Insane at Washington.[6] The measures employed were the drip sheet, wet packs and douches. By these means bromid acne was either prevented or relieved and the general tone of the patients was improved. The number of attacks in twelve patients was reduced by about 40 per cent. Since this report was issued no further records have been kept, and I am informed that few patients, if any, received any permanent benefit, and this treatment is not now used to any extent in this class of cases.

At the Pennsylvania Epileptic Hospital and Colony Farm the patients receive daily showers and a tepid tub bath once or twice a week. These are more for hygienic than for therapeutic purposes.

At the Glenmary Sanitarium at Owego, New York, baths are given only for personal cleanliness.

At the Craig Colony for Epileptics at Sonyea, New York, complete hydrotherapeutic apparatus has just been installed. Systematic treatment will no doubt be adopted under the most favorable circumstances, as these patients receive a minimum dose of bromid, about one gram daily, and are under an excellent hygienic régime. We shall look with interest to the results that will be obtained when the large number of patients at the colony have been treated after an approved method.

At the Glenwood Sanitarium at Dansville, New York, Dr. J. W. Wherry writes me that some years ago he gave considerable attention to hydrotherapeutic methods in the treatment of epilepsy, but he is not able to say that he noticed any direct effect on the epileptic condition. Since then he has discarded the measure excepting when indicated on general principles without reference to the epileptic condition itself. In a letter to me Dr. Wherry remarks very truly: "Whatever benefits the individual is an aid in the treatment of epilepsy. Some epileptics, like some other people, would be benefited by the employment of hydrotherapy; others would not."

In private practice difficulties are encountered in carrying on systematic treatment of this description. Daily treatment for several months would be required, and, of course, unbounded patience and hope are demanded of both physician and patient. The usual experience of outdoor clinics is that as patients improve their visits are more infrequent, but not rarely we find faithful ones who report regularly for years.

We would naturally expect that in focal or traumatic epilepsy less advantage would be derived than in cases of so-called idiopathic epilepsy, alcoholic epilepsy, psychic epilepsy, or in cases arising from intestinal intoxication or obscure metabolic changes. In such cases the free use of water inside and out ought certainly to be given a prominent place in any plan of treatment that may be adopted.

4. Max Matthes: Lehrbuch d' klin. Hydrotherapie, Jena, 2d Ed., 1904.

5. Manuel Gonzales Echeverria: Amer. Jour. Insanity, 1873-4, vol. xxx.

6. Report of the U. S. Government Hospital for the Insane, 1898; also Amer. Jour. Insanity, No. 4, 1899.

TENT COTTAGES FOR CONSUMPTIVES.

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AND
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A recent visit to New Mexico afforded us an opportunity to inspect the tent cottages for consumptives designed by Dr. W. T. Brown, the superintendent of the Valmora Ranch at Watrous, N. M.

These cottages present such a distinct advance in design and construction for their purpose that a detailed description seems worth the while. It may be well to preface the description by a brief statement of the conditions which such structures should fulfill. While the great desideratum is provision for a practically out-of-door existence for these patients, both by day and by night, there is no reason why this should be secured by large sacrifice of the chief comforts and conveniences to which they have been accustomed. The canvas tent, if properly made and set up, makes a very comfortable home in pleasant weather, but it is practically impossible to construct a tent in such a way as

to afford adequate protection against severe rain, hail or snow storms, high winds and extremes of temperature. It can not be readily equipped with sanitary conveniences, nor does it provide for a freer circulation of air than a more substantial structure, which assures the desired protection.

The cottages are constructed with one or two rooms. They are arranged on either side of and facing the lawn in front of the main building and are exposed on all sides. Each single-room cottage (Fig. 1), is 12x12 feet in area, is constructed of a framework of sixteen 2x4 uprights resting on 4x6 sills, which are supported on a stone foundation (Fig. 2). The five floor joists of 2x6 timbers support the floor of five-inch flooring. The sides are of five-inch drop siding to the height of three and one-half feet, while the remaining three and one-half feet of each side consists of twelve-ounce duck and three windows—one in front and one on each side—each window a six-pane 3x3 1/3 feet high, sliding laterally. The canvas sides, stretched on frames of 1x3-inch pine, a little larger than the windows, are so arranged as to provide five sections, one on each

Fig. 1.—Single cottage.

side and three at the back of the cottage, which are hinged at the top and opened by pushing out the bottom of the frame by a rod projecting through a hole in the wall just below the screened opening, so arranged that the frame is held firmly at any angle by a cord, which is also fastened from the inside. The door, 2½x 6½ feet, is at one side of the front elevation.

The gable roof, with a pitch of 1/3, is of cedar shingles above, and between this and the ceiling of stretched canvas below is an air space of four inches, opening by a series of large augur holes under the eaves and similar holes in the gable. These may be closed by a slide, so that this space may be made, in cold weather, a dead-air space, the best of insulators, while in warm weather it may be opened and the air allowed to circulate freely between the ceiling and the roof. Each cottage has a porcelain lavatory with running water and is furnished with a metal bedstead, the best of mattresses and bedding, a dresser, clothes press, table, chairs and a small stove.

The cottages are neatly painted a light slate color, with lighter trimmings; the roof, in Indian red; the interior, in a restful light brown, with the floor a light slate. With the canvas sides and windows closed and a light fire in the stove these cottages may be made perfectly comfortable for retiring at night and dressing in the morning. At night, when the occupant has prepared for bed, the windows and canvas sides are opened—from the inside of the cottage the work of but a moment—

Fig. 2.—Single cottage, rear view.

and he is at once practically out of doors, though perfectly protected from the severest storms. All of the openings are thoroughly protected from flies, etc., by wire screens.

The double cottages are similar in construction, excepting as to dimensions, which are 12x24 feet, making each room of the same size as that of the single cottage (Fig. 3).

Fig. 3.—Double cottage.

The location of such cottages is important. Their site should be on ground affording perfect drainage, and the outlook should be as attractive as it is possible to secure.

Dr. Brown generously offers to supply the exact plans and specifications of this improved Valmora tent cottage to any physician desiring to construct one.

THE OPERATIVE TREATMENT OF FRACTURES.

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(*Concluded from page 108.*)

THE AFTER-TREATMENT OF FRACTURES TREATED BY THE ABOVE METHODS.

After the operation the patient's temperature should be carefully recorded, and on the first indication of sepsis—rise in temperature combined with localized pain of a dull, throbbing character—a window should be cut in the plaster-of-paris dressing at the site of the operation and the wound inspected. If sepsis is present, it may be recognized by the usual signs. The skin sutures should then be removed and adequate drainage instituted. Irrigation with a mild solution of bichlorid of mercury or a normal salt solution, should be performed twice daily. Sepsis should not occur with any more frequency than in operations on other parts of the body. When the subjective signs show that healing by first intention is taking place, the dressing should not be disturbed until the seventh to the tenth day, when a window may be cut in the plaster-of-paris dressing, and the skin sutures removed. The subsequent treatment consists in the adoption of passive motion and massage as soon as union has taken place. As a rule, the period of disability will be much shorter, splints or a plaster-of-paris dressing should be worn a shorter time, and active motion and use of the part may be indulged in earlier than in similar cases treated by non-operative methods.

SUMMARY OF CASES.

CASE 1.—*Closed Fracture of the Femur.*—J. H. (B. C. H., Surgical Records B., vol. 420, p. 58), service of Dr. Bolles. Admitted June 7, 1904. Patient was thrown out of a window to the ground, a distance of about 20 feet. Unconscious for several hours.

Physical Examination.—Left leg at junction of middle and lower thirds presented a fracture of tibia and fibula. The right femur presents crepitus, abnormal mobility and deformity about the middle, with the lower end of the upper fragment almost piercing the skin.

The patient was etherized at time of admission, and the fracture of the left tibia and fibula and immobilized in a plaster-of-paris dressing from the toes to the groin. Repeated attempts to reduce the fracture of the right femur were fruitless. As no permission was obtained to operate, a modified Buck's extension apparatus was applied.

Operation.—June 18. Eleven days after entrance. Dr. Kelly. Ether anesthesia. An incision about four inches in length was made on the anterior surface of the right thigh at the seat of the fracture. The fractured ends were exposed. Considerable muscular tissue was found between fragments. Ends of fractured bone freed and, by manipulation and traction, approximated and remained locked. No bone suture used. The wound was closed in layer sutures of plain catgut and the skin by a subcuticular silkworm gut suture. A modified Buck's extension apparatus applied.

June 28: Skin suture removed. Wound entirely healed. Fragments in good position. Fair union.

July 27: Tibia shows firm union. Good union in femur.

August 8: Union of right femur firm. All apparatus omitted. Seven weeks after the operation.

August 26: Discharged. Relieved. Union at seat of fractures firm. No deformity. No shortening. Patient went out, using crutches, at the end of nine weeks. *X*-ray photograph showed the position of the fractured ends to be very good.

CASE 2.—*Closed Fracture of the Tibia.*—G. C. (B. C. H., Surgical Records B., vol. 414, p. 94).—Admitted Feb. 6, 1904, to the service of Dr. Cushing. Patient slipped on a cover of a coal hole and fell heavily on ankle.

Physical Examination.—Right leg, from ankle to knee, markedly swollen, the skin is covered on its anterior surface with 5 to 6 blebs, crepitus, abnormal mobility, deformity and fracture of the tibia at the junction of the middle and lower thirds. Shortening ¾ to 1½ inches. Marked overriding of the fragments. A small abrasion about the size of a silver dollar on inner anterior surface of leg about middle. On account of abrasion, immediate operation was not advised. Attempts made to reduce fragments with anesthesia were fruitless. Several forms of apparatus were devised to produce continued extension on the lower fragment without any result. At the end of three weeks the probability of non-union, deformity and shortening were explained to the patient and an operation advised.

Operation.—March 1, 1904. Dr. Monks and Dr. Kelly. Ether anesthesia. Vertical incision six inches long at seat of fracture. Ends of fragments exposed. Marked deformity of fragments; the upper end of the lower fragment projected backward, upward and inward into muscles of the back of the leg. Moderate amount of fibrous tissue between fragments. It was found impossible to secure approximation, so resection of the ends of both fragments was performed *in situ* with a chisel. All fibrous tissue removed. After approximation, internal fixation was secured with six interrupted chromicized catgut sutures. Periosteum and soft parts united by interrupted catgut sutures, and the skin by interrupted silkworm gut sutures. No drainage. A dry gauze dressing was applied to the wound and immobilization secured by a plaster-of-paris dressing from the toes to the groin.

March 19: No subjective symptoms since operation. Window cut in plaster, wound found to have healed by first intention. Skin sutures removed.

April 16: Plaster dressing removed. Union found to be firm. No deformity. Shortening ¼ of an inch. Second plaster-of-paris dressing and patient discharged, using crutches.

May 20: Plaster dressing removed. Union solid. No deformity. Massage, passive and active motion recommended. Advised to use crutches until they can be discarded. Figures 1 and 2 are from *x*-ray photographs taken before the operation. Figures 3 and 4 are from *x*-ray photographs taken four weeks after the operation.

CASE 3.—*Closed Fractures of the Tibia and Fibula.*—T. C. (B. C. H., Surgical Records, B., vol. 416, p. 82).—Admitted March 18, 1904, to the service of Dr. Cushing. During a quarrel the patient was thrown to the ground, injuring his right leg.

Physical Examination.—Considerable swelling and ecchymosis of entire right leg. Several blebs on anterior surface. Shortening ¾ of an inch. Crepitus, abnormal mobility and deformity present at middle of tibia, line of fracture probably oblique. Fracture of fibula at junction of middle and upper thirds. *X*-ray photograph shows an oblique fracture of tibia four inches above the internal malleolus. The upper end of the lower fragment of the tibia is displaced inward, backward and upward. Manipulation under anesthesia failed to reduce the fracture.

Operation.—April 6, 1904. Dr. Kelly. Ether anesthesia. The seat of fracture was exposed under aseptic precautions, and all bleeding controlled. Impossible to secure approximation on account of union having taken place at the seat of fracture of the fibula. An incision was then made over the seat of fracture of the fibula and the union divided. The ends of the fragments of the tibia then approximated and sutured by five interrupted chromicized catgut sutures. The wound closed as usual without drainage. Immobilization from toes to groin in a plaster-of-paris dressing.

May 6: Wound healed by primary union. Sutures removed at the end of ten days.

May 17: Plaster removed. Union firm. No deformity. No shortening. A fresh plaster dressing applied, and patient was discharged, using crutches, six weeks after the operation. Figures 5 and 6 show the *x*-ray photographs taken six weeks after the operation.

CASE 4.—*Ununited Fracture of the Femur.*—J. G. (B. C. H., Surgical Records, B., vol. 414, p. 230).—Admitted to hospital Jan. 20, 1903, with a fracture of the left femur near the middle. For a period of three months a modified Buck's extension apparatus was applied without any union taking place. At the end of this time, patient, having refused operation, left the hospital. Eight months after the injury, a resection of the ends of the fragments was performed by a private physician, and silver wire was used to secure approximation. The wound became infected, the wire broke and non-union resulted. Patient re-entered the hospital Feb. 25, 1904. At this time the examination showed a fracture of the left femur about the middle. Marked overriding of the fragments and deformity. After complete extension the shortening was 1½ inches. Scar on external surface of the thigh at the seat of the fracture.

Operation.—March 3, 1904. Dr. Monks, Dr. Kelly. Ether anesthesia. An incision was made on the external surface of the thigh and carried down through dense fibrous tissue to the seat of fracture. A condition of pseudarthrosis was found. The silver-wire suture from the previous operation was found to be broken and was removed. The ends of both fragments were resected and sutured together with heavy chromicized catgut, and the wound closed without drainage. A plaster-of-paris bandage, extending from the toes to the chest, secured immobilization. Following the operation, sepsis occurred, and required removal of the skin sutures for drainage. No union resulted at the end of seven weeks, when another attempt to secure union was made. The ends of the bone were freshened and united with three silver-wire sutures. Drainage was instituted and a plaster dressing applied as before. At the end of six weeks, as no union had occurred, the patient demanded amputation, which was performed two inches above the seat of fracture, Aug. 5, 1904, by Dr. Monks.

Sept. 3: The patient was discharged, with a granulating stump. One month later the patient returned to the hospital and was operated on for advanced carcinoma of the pylorus, and, after lingering several weeks, died. Figure 7 is an *x*-ray photograph showing the broken silver wire which failed to secure approximation. The introduction of sepsis at the first operation probably predisposed to reinfection at each subsequent operation. The presence of carcinoma of the pylorus and its consequent cachexia may have had some influence in the production of non-union.

CASE 5.—*Closed Fracture of the Femur.*—J. B. (B. C. H., Surgical Records, B., vol. 414, p. 172).—Admitted Feb. 16, 1904, to the service of Dr. Cushing. While patient was assisting in the moving of a heavy wooden tank, it fell on his legs, totally disabling him. Patient markedly shocked at the time of injury.

Physical Examination.—Shows a fracture of the right femur about four inches above the knee-joint. The upper end of the lower fragment is displaced upward and backward. The knee joint is considerably distended with fluid. In addition, there is a fracture of the left tibia about two inches from the upper end and a fracture of the internal malleolus of the same bone. On account of the shock from which the patient did not entirely recover for two weeks, the fractures were placed in temporary splints, and no attempts were made at reduction.

Operation.—March 7, 1904. Dr. Monks, Dr. Kelly. Ether anesthesia. Attempts were made three days ago to reduce the fracture of the femur with anesthesia, without success. To-day, through two lateral incisions on the inner and outer surfaces of the thigh at the seat of fracture, the fragments were exposed. Considerable amount of muscular tissue found between the fragments. By means of extension, abduction and adduction the fractured ends were approximated, locked in place by their irregular surfaces, and retention was secured by means of two heavy chromicized catgut sutures passed through the diameter of the fragments. The wounds were closed in layers without drainage, and a plaster-of-paris dressing was applied from the toes to the chest, securing complete immobilization. Reduction of the fractures of the left tibia was readily accomplished and immobilization secured by plaster-of-paris dressings.

March 24: No subjective symptoms occurred since the operation. The skin sutures were removed to-day.

April 18: Moderate-sized callus and firm union at the seat of fracture of the femur.

May 5: Plaster-of-paris dressing removed. No shortening; no deformity. Firm union. No further splint.

May 1: Up in a wheel chair.

May 13: Discharged, using crutches.

CASE 6.—*Closed Fracture of the Tibia.*—J. L. (B. C. H., Surgical Records, B., vol. 416, p. 86).—Admitted March 19, 1904, to the service of Dr. Cushing. Patient tripped over a piece of carpet, turning on ankle, eleven days before admission. Treated by private physician since the time of the accident.

Physical Examination.—The right leg is swollen from the toes to just below the knee. Marked tenderness, abnormal mobility and crepitus about three inches above the tip of the internal malleolus. Apparently some overriding of the fragments, the upper end of the lower fragment being displaced upward, outward and backward. Attempts under anesthesia to secure reduction of the fracture were not followed by success.

Operation.—March 30, 1904. Dr. Monks, Dr. Kelly. Ether anesthesia. The seat of fracture was exposed through an anterior incision. The fragments were found displaced, the upper end of the lower fragment being displaced upward, backward and outward. Approximation of the fragments was impossible on account of the overriding and the presence of fibrous tissue. The latter was removed, tenotomy of the tendo Achilles, and osteotomy of the fibula four inches above the external malleolus were performed, which permitted of approximation, after a small portion of either fragment had been resected with a chisel. Internal fixation secured by means of heavy chromicized catgut. The wound was closed in the usual way and without drainage. Immobilization was secured by means of a plaster-of-paris dressing applied from the toes to the groin.

April 16: There have been no subjective symptoms since the operation. A window was cut in the plaster and the wound was found to have healed by primary union. Skin sutures were removed. Up and about on crutches at the end of four weeks.

May 3: Thirty-four days after the operation the patient was discharged with a light plaster and using crutches. Union was solid. No deformity present at the seat of the fracture. Shortening ¼ of an inch. Figure 8 shows the condition present before the operation, and Figure 9 the results obtained by the operation.

CASE 7.—*Ununited Fractures of the Humerus and of the Radius.*—P. S. (B. C. H., Surgical Records, B., vol. 410, p. 106).—Admitted Nov. 24, 1903, to the service of Dr. Bolles. Patient fell off the back of a wagon, sustaining a compound fracture of the left humerus about three inches from its head and a closed fracture of the right radius at its middle. At the time of admission the compound fracture of the left humerus was thoroughly cleaned, the edges of the bone were not sutured and drainage was introduced. A moderate degree of sepsis occurred, which was afterward followed by non-union at the seat of fracture. After admission to the hospital the fracture of the right radius was reduced, and the entire forearm and arm immobilized in a plaster-of-paris dressing. Non-union also resulted here.

Operation.—Feb. 5, 1904. Eleven weeks after the injury. Dr. Monks, Dr. Kelly. Ether anesthesia. An incision was made over the seat of fracture of the right radius, and the fragments exposed. Some interposition of muscular tissue present between the fractured ends of the bone. This was removed, the ends freshened and internal fixation secured by medium chromicized catgut. The wound was closed without drainage, and immobilization was secured by a plaster-of-paris dressing from the hand to the upper arm.

Operation.—March 29, 1904. Dr. Monks, Dr. Kelly. Ether anesthesia. As non-union had resulted in the humerus, the seat of fracture was exposed by a vertical incision at the interior edge of the deltoid muscle. The fractured ends were found to be separated by muscular and fibrous tissue. This was removed and the fractured ends of the bone were carried through the wound and resected. Internal fixation was secured by means of heavy chromicized catgut, and, on account of sepsis having taken place, when the fracture was compound,

drainage was instituted. Immobilization was secured by splints and bandages. Drainage was removed at the end of two weeks and union was firm here and also in the radius at the end of eight to ten weeks. Figure 10 is the *x*-ray photograph taken before the operation, and Figure 11 the result obtained after operation.

CASE 8.—*Ununited Fracture of the Radius.*—H. D. (B. C. H., Surgical Records, B., vol. 402, p. 60).—Admitted June 23, 1903, to the service of Dr. Cushing. The patient was struck on the right forearm by a heavy beam.

Physical Examination.—Fracture of the right radius near its middle, abnormal mobility, crepitus and deformity being present, and over the seat of fracture there is an irregular wound.

After admission the wound was thoroughly irrigated and cleaned. The incision was enlarged and the fracture was found to be irregularly transverse, the lower fragment being displaced upward and toward the ulna. After considerable difficulty the fragments were locked together and the wound closed in layers. Drainage, with rubber tissue, used, which was removed at the end of two days. Immobilization with plaster-of-paris. The wound healed by primary union, and the stitches were removed at the end of seven days. At the end of three months no union had taken place and it was determined to suture the fractured ends together.

Operation.—Sept. 11, 1903. Dr. Hubbard. Ether anesthesia. An incision about three inches in length was made over the radius and the fractured ends exposed. The upper end of the lower fragment was found to be displaced upward and toward the ulna, as shown in Figure 12. Fibrous tissue was present between the fragments. This was removed by a curette and gouge, and the ends of the fragments resected. The approximated ends were then held together with a silver-wire suture, as shown in Figure 13. The wound was closed without drainage, and immobilization secured by means of a plaster-of-paris dressing applied from the hand to the upper arm. The wound healed by primary union, and the skin sutures were removed on the eighth day.

October 23: Forty-two days after the operation the patient was discharged, carrying the forearm in a sling. Union fairly firm, slight bowing toward the ulna at the seat of fracture. Pronation and supination good. Movements at the elbow and wrist joints slightly limited.

Figure 12 shows the condition before, and Figure 13 after, the operation.

CASE 9.—*Compound Fracture of the Femur.*—H. S. (B. C. H., Surgical Records, B., vol. 408, p. 176).—Admitted Oct. 27, 1903, to the service of Dr. Bolles. Patient caught foot in wheel of a team while hooking a ride.

Physical Examination.—Shows a fracture of right femur at the junction of the middle and lower thirds; abnormal mobility, deformity, crepitus and shortening of 1 inch present. Just below the internal condyle there is a transverse lacerated wound about six inches long, which communicates with the seat of the fracture.

Operation.—Dr. Kelly. Ether anesthesia. The wound was thoroughly irrigated and cleaned, and by manipulation the fragments were approximated. The skin wound was closed by interrupted silk-worm gut sutures, except at the point for drainage. Immobilization was secured by a plaster-of-paris spica applied from the toes to the chest, and extension applied to the lower end of the plaster. At the end of two weeks the external wound had entirely healed. On account of shrinkage of the soft parts and slipping of the plaster-of-paris spica, overriding of the fragments and shortening occurred. This was corrected Dec. 10, 1903, and a modified Buck's extension apparatus applied. Good union, without shortening or deformity, subsequently occurred.

CASE 10.—*Compound Pott's Fracture.*—J. T. (B. C. H., Surgical Records, B., vol. 414, p. 108).—Admitted Feb. 8, 1904, to the service of Dr. Cushing. Patient fell from a fire escape, a distance of fifteen to twenty feet, turning on ankle, and receiving a compound fracture, the end of the bone protruding through the skin.

Physical Examination.—Swelling of the lower third of left leg over the internal malleolus. An irregular, jagged wound, size of 10-cent piece, over the internal malleolus, exposes a fracture of the internal malleolus. Fracture of the fibula 1½ inches above the external malleolus present, with marked outward dislocation of the foot.

Operation.—Dr. Kelly. Ether anesthesia. The wound, which extended into the ankle joint, was thoroughly irrigated with normal salt solution, and small portions of tissue, into which dirt was ground, were cut away. The fracture was reduced and the torn periosteum united with medium-sized chromicized catgut sutures. The foot was held in its normal position by an assistant until the plaster-of-paris dressing was applied. The wound was closed by interrupted silkworm gut sutures, except at a point of drainage. Drainage was dispensed with at the end of three days, and the sutures were removed at the end of ten days, primary union having taken place.

April 6: Union firm. Moderate-sized callus. No deformity. Foot in good position. Movement of ankle joint free. Discharged, wearing a light plaster and using crutches.

CASE 11.—*Compound Fracture of the Humerus.*—J. C. (B. C. H., Surgical Records, B., vol. 414, p. 44).—Admitted Jan. 30, 1904, to the service of Dr. Bolles. The patient, a boy of 9 years, was injured by a sled passing over his left arm.

Physical Examination.—Shows a compound fracture of the left humerus about 1½ inches above the condyles, the line of fracture being transverse. Through a wound about one inch in length on the inner surface of the arm, the seat of fracture could be seen.

Operation.—Jan. 31, 1904. Dr. Kelly. Ether anesthesia. The arm was thoroughly cleaned, the wound irrigated with normal salt solution and enlarged and the seat of fracture exposed. The line of fracture was irregularly transverse. A counter incision was then made on the external surface of the arm. The fragments were approximated and held together by two interrupted chromicized catgut (No. 3) sutures passed through the entire diameter of the bone. The wounds were sutured in the usual manner without drainage. The part was immobilized in splints and a swathe.

The wounds healed by primary union, the stitches were removed on the tenth day, and on February 17 the patient was discharged with fairly firm union, and no deformity. Further treatment was continued in the out-patient department. Figure 14 is from the *x*-ray photograph taken five weeks after the operation.

CASE 12.—*Compound Fractures of the Tibia and Fibula.*—D. D. (B. C. H., Surgical Records, B., vol. 412, p. 158).—Admitted Jan. 6, 1904, to the service of Dr. Bolles. The patient was injured by the explosion of a water-back of a range.

Physical Examination.—Shows considerable swelling and ecchymosis of entire left leg. On the outer surface of left leg about its middle is an irregular lacerated wound about 1½ inches long, and on the anterior surface there is a similar wound. About the middle of the left tibia there is an oblique fracture with marked overriding of the fragments and displacement of the fractured ends. A fracture of the left fibula about its middle is also present. Surrounding the wounds there is considerable destruction of the soft parts. In addition the patient had marked synovitis of the right knee joint and lateral mobility.

Operation.—Shortly after entrance. Dr. Kelly. Ether anesthesia. The skin was rendered aseptic as usual, and the wounds were thoroughly irrigated with normal salt solution and enlarged, disclosing an oblique fracture of the fibula. Both fractures were reduced and approximation remained good without suturing the fragments. The wounds were closed in layer sutures and drainage used in both wounds. Immobilization secured with a plaster-of-paris dressing from the toes to the groin, and a window was cut in the plaster for subsequent observation.

Following the operation, there was considerable sloughing of the skin and superficial fascia, exposing the lower end of the upper fragment of the tibia for a distance of two inches. Extension was applied to the foot by means of a special Cabot splint and plaster dressing, so that the fragments were always in good position. The wound gradually closed, excepting for a small area over a portion of the upper fragment of bone, which became necrosed and subsequently separated. At the end of three months the wound had entirely closed and there was be-

ginning union at the seat of fracture, with shortening of about ½ inch. The patient was then discharged to the out-patient department, wearing a plaster-of-paris dressing and using crutches. Solid union subsequently occurred, and the patient recovered with a sound limb which was not deformed.

CASE 13.—*Compound Fractures of the Tibia and Fibula.*—F. K. (B. C. H., Surgical Records, B., vol. 418, p. 160).—Admitted May 12, 1904, to the service of Dr. Cushing. The patient, while running for a car, slipped and fell, with his leg doubling up under him.

Physical Examination.—On the outer surface of the left leg, at the junction of the middle and lower thirds, there is an irregular lacerated wound about two inches in length, leading down to a fracture of the fibula. At a position about one inch above the fracture of the fibula there is an oblique fracture of the tibia. There is marked deformity and overriding of the fragments of both bones.

Operation.—Dr. Kelly. Ether anesthesia. The skin was prepared in the usual manner and the wound thoroughly irrigated with normal salt solution and enlarged. The seats of fracture were exposed and reduction of the fragments accomplished without difficulty. Interlocking of the fragments obviated internal fixation with catgut. On account of the apparent cleanliness of the wound it was closed in the usual manner without drainage and immobilization secured with a plaster-of-paris dressing applied from the toes to the groin.

Eight days after the operation the wound was inspected, and primary union had taken place. The skin sutures were then removed.

June 20: Thirty-nine days after the operation, the plaster-of-paris dressing was removed and firm union was found to be present. The position was good, there was no shortening and no deformity. A fresh plaster-of-paris dressing was applied, and the patient discharged, with crutches, to the out-patient department.

CASE 14.—*Compound Fractures of Tibia and Fibula.*—P. G., 37 years (B. C. H., Relief Station Records, vol. 6, p. 151).—Admitted March 18, 1903, to the service of Dr. Bolles. The patient, while intoxicated, fell off a moving train, and at the time of admission was in a condition of marked shock from loss of blood. The operation was delayed four hours until consent for operation could be obtained.

Physical Examination.—The left leg presents a compound fracture of tibia and fibula. At the junction of the middle and lower thirds, the lower end of the upper fragment projecting through a wound on the inner side of the leg. Considerable hemorrhage had apparently taken place.

Operation.—Dr. Kelly. Ether anesthesia. The part was prepared aseptically in the usual manner and the wound enlarged for exploration. Four bleeding veins were ligated. On exposing the seat of fracture, the lower end of the upper fragment of the tibia was found to be discolored with dirt for a distance of ¾ of an inch, so that the involved portion was cut away with rongeur forceps and the fractured ends approximated. Internal fixation was secured by means of two silver-wire sutures and the wound closed in the usual method with drainage. Immobilization was secured by means of a plaster-of-paris dressing applied from the toes to the groin. The patient stood the operation very well, and recovered from the anesthetic, but, in spite of most active stimulation, died on the following day (20 hours after the operation), apparently of shock.

CASE 15.—*Compound Fractures of Radius and Ulna.*—M. R. (B. C. H., Relief Station Records, vol. 6, p. 139).—Admitted March 16, 1903, to the service of Dr. Bolles. The patient was injured by having forearm caught between a belt and pulley.

Physical Examination.—The left forearm present on its posterior surface, at a point between the middle and lower thirds, a transverse lacerated wound about two inches long, which is continued down the forearm at right angles for a further distance of two inches, through which projects the upper ends of the lower fragments of the fractured radius and ulna.

Operation.—Dr. Collins, Dr. Kelly. Ether anesthesia. The forearm was prepared as usual and the wound thoroughly irrigated with normal salt solution. The fraccured ends of the radius and ulna, after reduction, were held approximated by means of silver-wire sutures, and the wound closed in the usual manner with drainage. Immobilization was secured by means of a plaster-of-paris dressing applied from the hand to the upper arm, the hand being in a position midway between pronation and supination, and the elbow at a right angle. The wound healed by primary union, and the skin sutures were removed on the eighth day and the patient discharged to the out-patient department. At the end of seven weeks, union was firm and the fragments had united without deformity, although there remained some limitation of pronation and supination.

CASE 16.—*Compound Fractures of the Tibia and Fibula.*—(St. M. H., Surgical Records, No. 513).—Admitted May 17, 1902, to the service of Dr. H. B. Deaver. The patient was injured by a heavy bar of iron falling on his leg.

Physical Examination.—The left leg presents a compound fracture of the tibia about 2½ inches above the ankle joint. Fibula fractured about the same level. Considerable swelling and ecchymosis of the soft parts present.

Operation.—Dr. Kelly. Ether anesthesia. The leg was thoroughly cleaned as usual, and the wound irrigated with a solution of bichlorid of mercury (1/10000). The wound was then enlarged, exposing a double fracture of the tibia, one line of fracture being transverse and the other oblique, leaving a triangular piece of bone held by periosteum. The fragments were reduced and retained in place with silver-wire sutures. The wound was closed in layers and drainage used. The leg was then immobolized in a plaster-of-paris dressing.

Two days after the operation, subjective signs of sepsis being present, several skin sutures were removed, and irrigation used three times a day. In spite of active treatment, the infection became so severe that amputation below the knee was necessary at the end of three weeks. This failed to prevent the spread of the infection, and, as the knee joint became involved, amputation at the lower third of the thigh was performed seven weeks after the primary operation.

The patient finally recovered and was discharged from the hospital, with a healed stump.

CASE 17.—*Malunion Following Colles' Fracture.*—E. B. (St. M. H., Surgical Records, No. 1149).—Admitted Aug. 8, 1904. The patient fell four weeks before admission, injuring wrist, which she considered a sprain, and which was treated as such by a physician. When I saw the patient, the right hand was markedly abducted, pronation and supination were impossible, the radial arch was entirely absent, and marked deformity of the lower end of the radius was present.

Operation.—Dr. Kelly. Ether anesthesia. The part was prepared as usual, and through an incision 1½ inches in length on the radial side of the forearm, at the seat of fracture, the fragments were exposed. The lower end of the upper fragment was displaced toward the ulna and flexor surface of the forearm, and overriding was present. Fibrous tissue intervened between the fragments. This was removed by a gouge and chisel, and reduction accomplished, the fragments interlocking. The wound was closed in the usual manner, without drainage, and sealed with a collodion dressing. Immobilization was secured with well-padded anterior and posterior splints, the hand being held in marked adduction. Primary union occurred and the skin suture was removed on the seventh day. At the end of three and a half weeks, both splints were dispensed with. Union was firm, deformity was absent, pronation and supination were as good as before the injury.

CASE 18.—*Malunion Following Pott's Fracture.*—J. S. (St. M. H., Surgical Records, No. 469).—Admitted May 23, 1902, to the service of Dr. H. B. Deaver. The patient sustained a Pott's fracture four weeks ago, and at the present time the fragments have united, with deformity. The foot is markedly everted and displaced slightly backward.

Operation.—Dr. Deaver, Dr. Kelly. Ether anesthesia. Through a vertical incision about four inches in length over the fibula, the fragments of the latter were exposed. The fractured ends were displaced and united in this position by fibrous union. The fibrous tissue was removed with a gouge and curette, and the ends of the fragments were freshened with a chisel. No union had occurred between the internal malleolus and the tibia. The fracture was reduced and the fragments of

the fibula united by a silver-wire suture. The wound was closed in the usual manner, without drainage, and immobilization secured with a plaster-of-paris dressing applied from the toes to just below the knee. The skin sutures were removed on the tenth day. Primary union occurred, and three weeks after the operation fairly firm union had taken place, without any deformity resulting. The patient was then discharged to the out-patient department, wearing a plaster-of-paris dressing and using crutches.

CASE 19.—*Malunion Following Pott's Fracture.*—C. G. (St. M. H., Surgical Records, No. 375).—Admitted April 15, 1902, to the service of Dr. H. B. Deaver. The patient slipped, turning on ankle, and sustained a Pott's fracture five months previous to admission. He was treated at another hospital, where the foot and leg were placed in a plaster-of-paris dressing and kept there for six weeks. At the end of this time, marked deformity had occurred. On admission, the right foot was markedly everted and the ankle widened.

Operation.—Dr. Deaver, Dr. Kelly. Ether anesthesia. The fragments of the fibula and tibia were exposed by two vertical incisions made on either side of the ankle. Firm union in a deformed position was found to have occurred. The union between the fragments was cut away with a chisel and considerable fibrous tissue removed. The fragments were then approximated with considerable difficulty and held in place by silver-wire sutures. The wounds were closed as usual and without drainage. The foot being held in its normal position, immobilization was secured with a plaster-of-paris dressing. Primary union had occurred and the skin sutures were removed on the tenth day. At the end of three weeks, union was fairly firm, there was no deformity, and the patient was discharged to the out-patient department, wearing a plaster dressing and using crutches.

CASE 20.—*Ununited Fracture of the Tibia.*—C. C., 31 years (B. C. H., Surgical Records, B., vol. 398, p. 78).—Admitted April 21, 1903, to the service of Dr. Cushing. The patient was injured by a wheel of an ice wagon passing over his left leg.

Physical Examination.—There is considerable swelling and ecchymosis of the left leg, and at the junction of the upper and middle thirds there is crepitus, abnormal mobility and deformity of the tibia, with some overriding of the fragments.

Reduction was apparently accomplished under anesthesia and the parts immobilized in a plaster-of-paris dressing. At the end of three months, no union had occurred and the operation was performed.

Operation.—Dr. Lund, Dr. Kelly. Ether anesthesia. An incision about five inches in length was made on the anterior surface of the leg at the seat of the fracture and was carried down to the bone. The upper end of the lower fragment of the tibia was found to be displaced backward and outward and separated from the upper fragment of the tibia by muscular and fibrous tissue. This was removed by a curette and scissors and the ends of the fragment freshened. Internal fixation was performed with heavy chromicized catgut, and the wound closed in the usual manner and without drainage.

Immobilization was secured with a plaster-of-paris dressing applied from the toes to the groin. The wound healed, primary union, and the skin sutures were removed on the eighth day.

Three months after the operation, the patient was discharged, using crutches. At this time union was firm, and, on account of the small portion of bone which was removed from the end of each fragment at the time of the operation, there was slight inward bowing at the seat of fracture.

CASE 21.—*Compound Fracture of the Humerus.*—S. L., age 5 years (B. C. H., Surgical Records, B., vol. 402, p. 10).—Admitted June 17, 1903, to the service of Dr. Cushing. The patient was injured by being struck by a passing team.

Physical Examination.—The left humerus presents a compound fracture about 1½ inches above the condyles, the skin wound being on the internal surface of the arm and about one inch in length. In addition, the patient has a closed fracture of the right femur about its middle.

Operation.—Dr. Lund. Ether anesthesia. The left arm was prepared in the usual manner, and the wound, after being thoroughly irrigated with normal salt solution, was enlarged, exposing the seat of fracture. The fragments were approximated and held together by medium-sized chromicized catgut sutures. The wound was closed in the usual manner and with drainage. Immobilization was secured by means of a plaster-of-paris dressing, applied from the hand to the axilla, the elbow being placed at a right angle.

Following the operation there was considerable sloughing of the soft parts about the wound, leaving a portion of one fragment exposed and denuded of periosteum. At the end of ten weeks a sequestrum was removed and union had taken place at the seat of fracture. At the end of twelve weeks, the wound had entirely closed, and the patient was discharged to the out-patient department. Union was firm; there was very slight angular deformity, inward at the seat of fracture, and there was no limitation of motion at the elbow joint.

CASE 22.—*Compound Comminuted Fracture of the Femur.*—C. M., age 24 years (B. C. H., Surgical Records, B., vol. 402, p. 150).—Admitted July 4, 1903, to the service of Dr. Monks. The patient, while driving a fire engine, was injured by a train striking the wagon.

Physical Examination.—In addition to multiple contusions, there is a compound fracture of the left femur at the junction of the middle and lower thirds, the external wound being about four inches long on the external surface of the thigh at the seat of fracture.

Operation.—Dr. Lund. Ether anesthesia. The thigh was cleaned in the usual manner, and the wound, after being thoroughly irrigated with normal salt solution, was enlarged. Examination of the fracture showed considerable comminution of the fragments for a distance of three inches. The loose fragments were removed and the wound closed with interrupted silk-worm gut sutures, except at the lower angle, where several strips of iodoform gauze were introduced for drainage. The fragments were held in position externally by a plaster-of-paris spica dressing, extending from the toes to the waist. Following the operation, there was considerable sloughing of the edges of the wound, and during a period of three months small fragments of bone were removed from the wound. At this time there still persisted a small sinus, but firm union was present. There was three inches' shortening and no angular deformity. All apparatus was then removed. One month later the sinus was corrected and several pieces of necrotic bone removed. The patient was finally discharged six months after the time of injury, using crutches. This case was interesting on account of the large amount of bone which was lost (three inches), due to the comminution of the fragments, and was followed by good union and a fair functional result.

Figure 15 shows the poor anatomic result, which may at times follow fractures of the tibia and fibula when treated by non-operative methods. The loss of a laborer's earning capacity is apparent with such a result. This is a type of case which would have been followed by better results if subjected to operative intervention.

CONCLUSIONS.

In conclusion, it may be stated that all closed fractures do not require operative intervention for proper reduction and immobilization. In fact, perfect anatomic and functional results are obtained in the great majority of cases when treated by conservative means. There are, however, some cases in which reduction can not be accomplished under anesthesia, and in which the *x*-ray photograph shows faulty approximation of the fractured ends. There are other fractures in which we know from experience that union will occur only with deformity, and the functional results thereby lessened. Other classes of fractures are frequently followed by non-union. We should carefully discriminate between the various classes of fracture and select only those for this plan of treatment, which would not be followed by perfect anatomic and functional results, if treated by non-operative methods. The probability of infection following such operations in experienced hands and under proper surgical precautions, should be no more frequent than in operations on other structures.

Fig. 1.—Case 2. Closed fracture of the tibia and fibula. Skiagraph taken in an antero posterior position before the operation. The degree of overriding is shown, and the tendency of the upper end of the lower fragment of the tibia to be displaced upward and outward.

Fig. 2.—Case 2. Closed fracture of the tibia and fibula. Skiagraph taken in a lateral position before the operation. The overriding and the backward displacement of the upper end of the lower fragment is well shown. In this case this sharp fragment was found piercing the muscles, and reduction would have been impossible by non-operative measures.

Fig. 3.—Case 2. Closed fracture of the tibia and fibula. Skiagraph taken in a lateral position six weeks after the operation. It shows well the third fragment which is so frequently present in spiral and oblique fractures of the tibia.

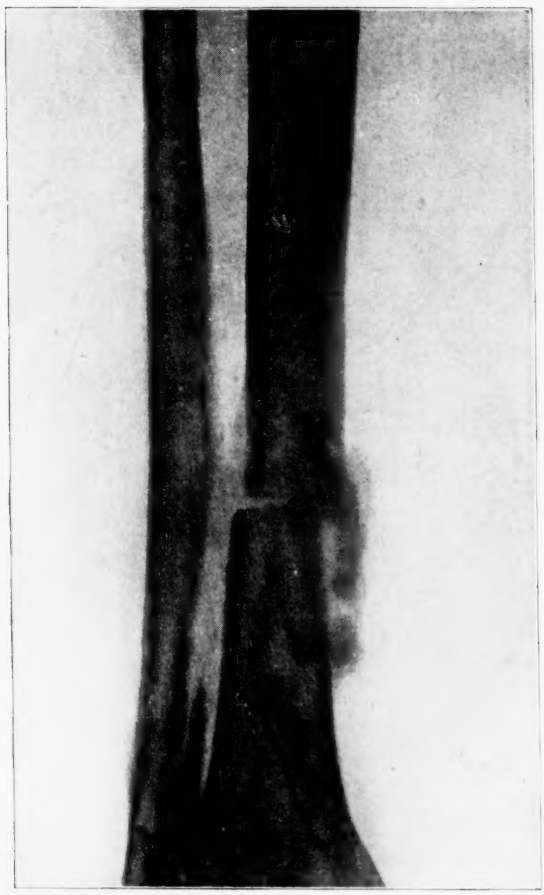

Fig. 4.—Case 2. Closed fracture of the tibia and fibula. Skiagraph taken in an antero-posterior view six weeks after the operation. It shows the extent of the resection and the preservation of the normal axis of the tibia.

Fig. 5.—Case 3. Closed fracture of the tibia and fibula. Skiagraph taken in a lateral position seven weeks after the operation. The characteristic displacement was present, as in Case 2. No resection of the fragments was necessary. The suture holes and the approximation show well.

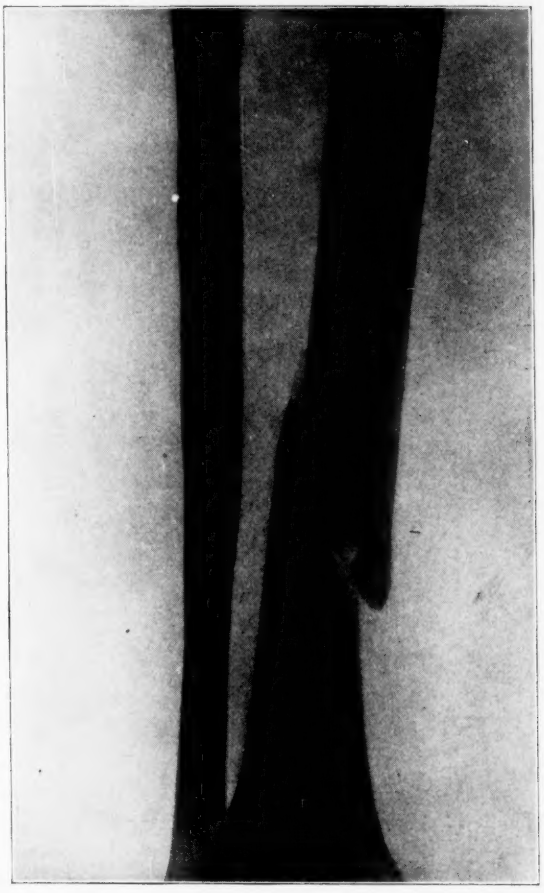

Fig. 6.—Case 3. Closed fracture of the tibia and fibula. Skiagraph taken in an antero-posterior position seven weeks after the operation. The picture shows the retention of the fragments in the normal axis of the bone, also the suture holes.

Fig. 7.—Case 4. Ununited fracture of the femur. Skiagraph taken five months after the fragments had been sutured with silver wire. The broken silver wire failed to retain the fractured ends in approximation. It shows well the disadvantage of silver wire as a suture material, as it is liable to break at any time when any angularity at the seat of fracture is produced.

Fig. 8.—Case 6. Closed fracture of the tibia. X-ray photograph taken in an antero-posterior position, before the operation. The spiral nature of the fracture is well marked. The displacement of the fragments is constant, the upper passing downward, forward, and inward; the lower, upward, backward and outward. The knowledge of the character of the displacement is of great value to the surgeon, in that it simplifies considerably the details and severity of the operation, and secures a perfect result.

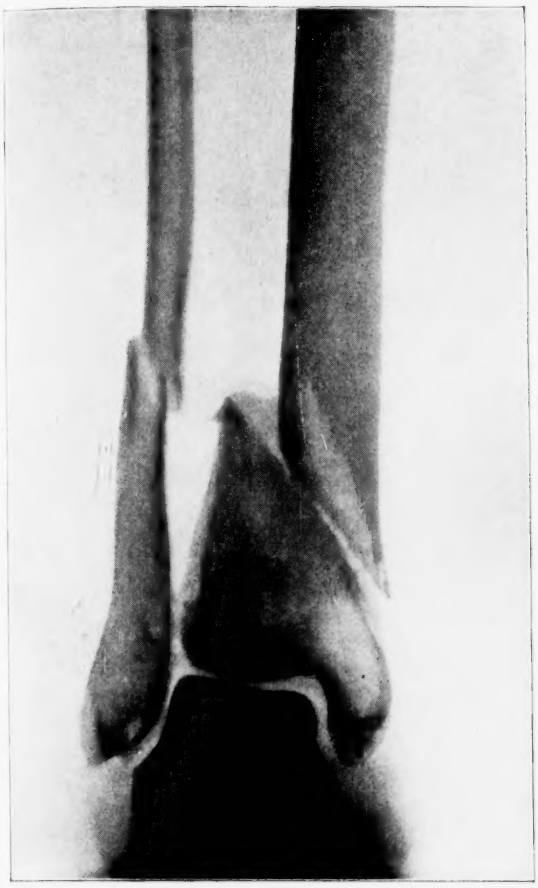

Fig. 9.—Case 6. Closed fracture of the tibia. Skiagraph taken in an antero-posterior position four weeks after the operation. The approximation is not as good as it should be, but the length of time that had elapsed from the time of the injury to that of the operation necessitated some resection of the fragments.

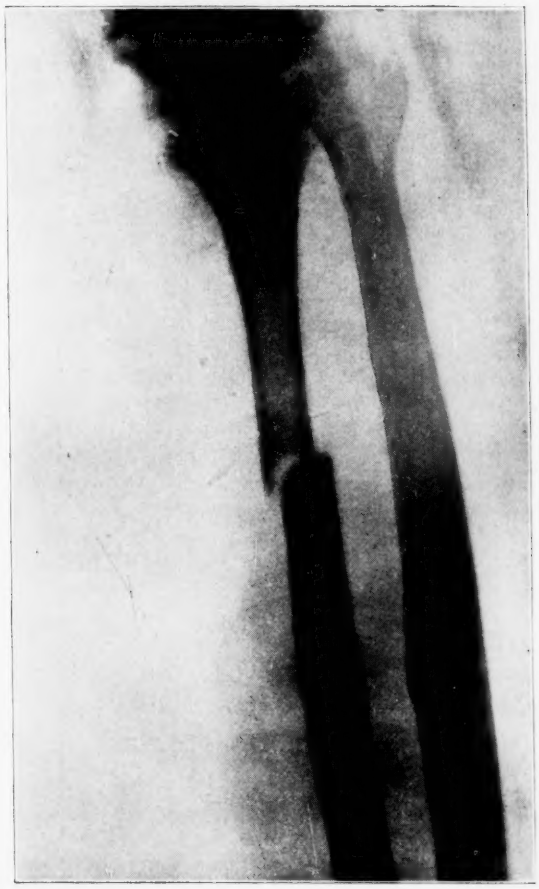

Fig. 10.—Case 7. Ununited fracture of the radius. Skiagraph taken in a lateral position before the operation. The apparently good approximation, as shown in the photograph, was rendered inadequate, owing to the interposition of muscular tissue between the fractured ends.

Fig. 11.—Case 7. Ununited fracture of the radius. Skiagraph taken in a lateral position four weeks after the operation. The approximation is good, but there is slight deformity at the seat of the fracture, due to the resection of the fractured ends.

Fig. 12.—Case 8. Ununited fracture of the radius. From a skiagraph taken in a lateral position before the operation. The displacement toward the ulna is constant in fractures of the radius in this position. The extent of malunion is well shown.

Fig. 13, Case 8, represents the results obtained by the operation. The silver wire suture gives perfect approximation. The extent of regeneration from the periosteum is shown.

Fig. 14.—Case 11. Compound fracture of the humerus. Skiagraph taken in a lateral position five weeks after the operation. The preservation of the axis of the humerus is perfect. The excessive callus is probably due to the comminution of the fragments and absence of perfect approximation of the periosteum.

Fig. 15.—Malunion following fractures of the tibia and fibula. Skiagraph taken in an antero-posterior position of a fracture involving both bones of the leg. The union is very firm, but the loss of a laborer's earning capacity with such a result is evident.

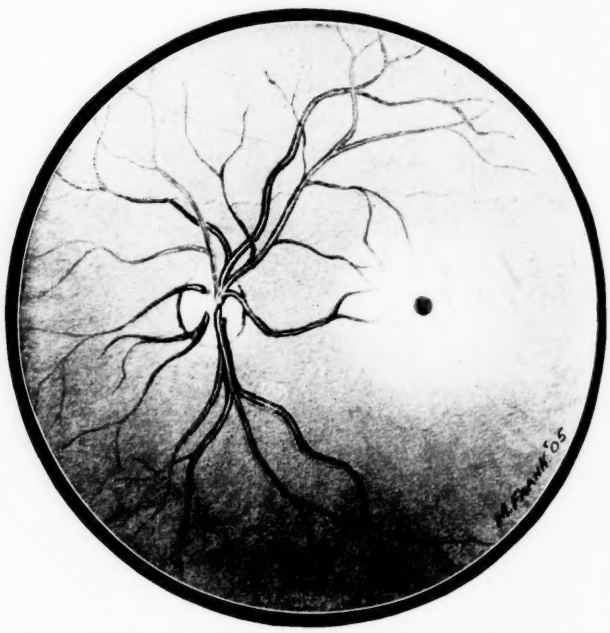

Illustration of the article by Dr. Mortimer Frank, showing fundus of eye in patient with amaurotic family idiocy.

A CASE OF AMAUROTIC FAMILY IDIOCY,

WITH A SUMMARY OF REPORTED CASES.*

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CHICAGO.

This uncommon disease is especially interesting to ophthalmologists because of the fundus changes which are pathognomonic and because Warren Tay, an English oculist, first drew attention to the subject in 1881. From that time until 1896, when Sachs proposed the name as now used, each observer described his case under a different title.

Amaurotic family idiocy is a fatal disease, commencing in the early months of infant life with muscular weakness progressing to almost complete paralysis, associated with a distinct symmetrical fundus appearance and terminating in death about the end of the second year. No definite exciting cause has been assigned. There is no evidence that inherited syphilis, consanguity of parents or any of the usual diatheses is a factor. There is, however, a marked racial peculiarity. In all but six of the recorded cases the disease has occurred in Jewish children. Both male and female children are affected. There is a suggestive family predisposition in that more than one child in the same family is attacked, but with no regularity in the order in which this takes place.

The child is born at full term, sound and healthy, and continues so until about the third month. It then ceases to develop along normal lines and signs of muscular enfeeblement, especially of the back of the neck, are observed, with failure of sight. Should an ophthalmoscopic examination be made at this time, definite and characteristic changes in and about the macular region will be detected. Marasmus increases slowly, and the muscular enfeeblement becomes so pronounced that the child is unable to sit up and the head falls backward if unsupported. The grasp is feeble and objects placed in the hands are soon dropped. There is a decided cessation of mental development and the child becomes apathetic. Perception of light is present for a time, while hearing remains hyperacute, so much so that any sound causes the child to start.[1] The sense of taste is preserved, and interference with deglutition occasionally happens. Finally, paresis or paralysis, either flaccid or spastic, of the greater part of the body appears. The deep reflexes may be exaggerated or diminished and occasional spasmodic contraction occurs. The temperature is normal throughout the course of the disease. Falkenheim calls attention to an explosive laughter, which could be induced in the reported case by blowing on the child's face. Total blindness finally ensues from optic atrophy. The duration of life varies from one and a half to two and a half years.

The following case was referred to me by Dr. A. C. Cotton, through whose courtesy I am enabled to publish it. Minute details are omitted, as the history will be more fully gone into when published by him:

R. H., female, aged 1 year, was examined March 27, 1905. She is the youngest of four children, the remaining being boys in good health. There is a history of one miscarriage. All the children have been breast fed. The parents are of Jewish extraction, with no history of consanguinity or syphilis. The appearance and nutrition of the child was good and the head was well formed and of normal size. She was listless, unable to sit up and apathetic and understood nothing. The reflexes were exaggerated and especially noticeable was the abnormal susceptibility of the child to noises.

The following ocular symptoms were noticed: The pupils were about 1.5 mm. in diameter, equal in size and reacted slowly to light, but light thrown into the eyes failed to give any evidence of vision. A drop of atropin solution was put into each eye to facilitate the examination. The discs were atrophic, grayish in color, and the outlines well marked. The retinal vessels were of normal size. The fundus picture, as described elsewhere, was typical of the disease.

The ocular symptoms are pathognomonic of the disease and are present early. In the beginning there is no change in the appearance of the discs and the child is able to see. Later on there is definite optic atrophy and total amaurosis. Optic neuritis has been observed to precede optic atrophy. The changes at the macula are characteristic and unique and always symmetrical. These changes remain unaltered throughout the course of the disease. About the macula is a nebulous area, grayish-white in color, slightly raised above the surface of the retina and about two to three times the size of the optic disc, with softened edges gradually blending with the normal fundus. The patch is somewhat oval in shape with the major axis horizontal. In its center, coinciding with the fovea centralis, but larger, is a dark red or liver-colored spot clear cut in outline. Surrounding the central spot can be seen distinctly the tiny retinal vessels Strabismus and nystagmus has been observed in some cases. There is no recorded regularity as to the condition of the pupils.

In but six cases have the eyes been studied microscopically. Treacher Collins reported the first findings in Kingdon's two cases. He found the retina much thickened at the yellow spot, due to enlargement of the outer molecular layer, the tissue of which showed a spacing-out which he regarded as indicative of edema. The most marked changes occurred in the neighborhood of the fovea and became less evident toward the periphery of the affected area. The retina was detached from the choroid, and had been thrown up in folds above the macular region, probably due to faulty fixation with Müller's fluid. The optic nerve was atrophied and showed an increase of interstitial connective tissue and a large number of round cells. At the time of this examination no study had been made of the ganglion cells.

In the third case, that of Peterson's, examined by Ward Holden, the results were unsatisfactory, owing to the advanced postmortem changes.

In the fourth case, that of Hirsch, also examined by Holden, he reported the essential changes in the eye to be degeneration of the ganglion cells of the retina, and of the nerve fibers of the optic nerve and tracts.

In the fifth case, that of Mohr, examined by Preisz, he reported edema and thickening of the outer molecular layers, especially the fiber layer of Henle, which composes the outer portion of this layer in the region of the macula. This edema is ascribed to a probable angioneurotic disturbance, the result of pathologic alterations in the cervical cord. No mention is made of the condition of the ganglionic cells. The outer segments of the rods and cones were degenerated and the formation of a granular substance found between the external limiting membrane and the choroid.

Holden was the first to show the relationship between the fundus changes, especially at the macula, to those found in the central nervous system. He likewise regards the atrophy of the optic nerve, both as an ascending and a descending degeneration, and dependent on a common cause and related to the changes in the cerebral nervous system, as both are embryologically related.

* Read before the Chicago Medical Society.

1. Kingdon observed the changes in the temporo-sphenoidal lobe much less marked than in other regions of the brain, which probably explains the fact that hearing is unaffected.

In the sixth case, that of McKee, examined by Shumway and Buchanan, the views of Holden were confirmed.

The nebulous area about the macula, it is reasonable to suppose, results from the swollen and degenerated ganglion cells present in larger numbers in the macular region rather than to an edema. Two facts speak against edema: first, the unchanging appearance of the lesion for months, and the absence of any veiling of the minutest vessels in this area (Falkenheim).

In the fovea the ganglion cells are absent, but at the margin of the fovea the ganglionic layer is six to ten cells deep, gradually growing less until at the periphery it is only a layer of single cells. Thus we have the red center void of cells, next the dense white corresponding to the deepest portion of the layer, fading away gradually as the cells become fewer. In the vertical meridian the ganglion cell layer thins out more rapidly than in the horizontal, explaining the oval area about the macula having its major axis horizontal.

Sachs,[2] in his last paper, lays great stress on the morbid process in this disease affecting primarily, or at least to a great extent, the larger ganglion cells of the entire gray matter of the brain and of the spinal cord. These confirmed the cellular findings previously described by Hirsch[3] and recently by Spiller.[4]

The following is a summary of the statistics of all the cases reported up to July 1, 1905: Thirty-two authors report 54 cases, with histories completed, and 20 additional cases alluded to. Of these patients, 22 are males, 25 females, and in 7 no sex is reported. Twelve postmortems have been performed, and in 6 cases the eyes have been examined microscopically. Twenty-seven cases occured in Jews, 6 in Gentiles, and in 21 cases no data is given. In 15 cases nystagmus was present. The youngest patient was four months old; the oldest three and three-fourths years. The statistics compiled from my table differ from those published by Spiller and Falkenheim, owing to the omission from the list of the same case published by different authors.

THE ELIMINATION OF THE NOSTRUM TRAFFIC,

AN EVIDENT DUTY OF AMERICAN PHYSICIANS.*

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What is a nostrum?

Why should nostrums be eliminated?

Why should physicians be interested in their elimination?

As an answer to the last and certainly the most directly interesting of these three questions it may be pointed out that, apart from the duties and obligations imposed on physicians, by the traditional oath of Hippocrates, the practice of medicine, in every state, is hedged about and protected by laws that are designed to prevent the ignorant and the incompetent from imposing on the people of the commonwealth, and also, in a measure at least, are designed to protect regularly licensed members of the medical profession from imposition and unnecessary competition in the practice of their science or art.

The members of the medical profession, on the other hand, in thus seeking and accepting the protection secured to them under these several statutory enactments, are expected to guard and to protect the lives of the citizens of the state from infection and disease and, incidently at least, to point out the dangers and, if possible, prevent the use, or at least the abuse, of anything that will in any way endanger the health or the well-being of the individual members of the community.

It is in this capacity, as guardians of the health and the well-being of the individual members of the community, that physicians are in duty bound to take cognizance of the present widespread inquiry into the status of nostrums and their possible deleterious effects on the health and even the lives of unwitting or indiscreet consumers.

WHAT IS A NOSTRUM?

As an answer to the question, What is a nostrum? we may safely accept the usual dictionary definition and include as nostrums, or at least as objectionable nostrums, all medicines "the ingredients of which are kept secret for the purpose of restricting the profits of sale to the inventor or proprietor." Personally, I believe that the word nostrum, in keeping with its evident derivation from the Latin word *noster,* might properly include all medicines or medicinal preparations in which any one individual or firm claims, or maintains, a proprietary right, either by secrecy, trade privileges or official letters patent, thus making the word nostrum practically synonymous with the term proprietary medicine, as used at the present time. I myself believe that this broader definition is quite in harmony with existing conditions and fully in keeping with the facts.

Restricting the word nostrum, however, as being applicable only to proprietary medicines which are in any way secret, or for which extravagant claims are made, as therapeutic agents, I am sure that you will readily agree with me that under no condition is the use of such substances in keeping with what purports to be a scientific occupation, and least of all can their use be made compatible with that most important and most responsible of all duties, the conservation and preservation of human lives.

Surely you will agree with me that if there is any one field of scientific investigation in this wide world that should be absolutely free from commercialism, or even a suspicion of secrecy, trickery and fraud, it should be the science of medicine in the very widest application of that term.

How far removed we are from even an approximate realization of this ideal becomes evident when we learn that, at the present time, nostrums appear to constitute fundamental necessities in the armamentarium of many physicians, as well as being the ever-ready cure-all recommended by blacksmiths and tailors.

The reasons for this unfortunate state of affairs are varied. In the first place we must not forget that nostrums, even the vilest of them, are not readily differentiated from what might be perfectly legitimate proprietary medicines, and we must also bring ourselves to realize that manufacturers of otherwise unobjectionable remedies have adopted, and are now using, highly objectionable methods in exploiting their preparations.

Another potent factor in developing the present widespread use of nostrums by physicians is to be found in the fact that the physician who is at all susceptible to extraneous influences can always find, ready at hand, literature suggestive of the curative qualities of nos-

2. Sachs: Jour. Ment. and Nerv. Dis., January, 1903, p. 1.
3. Hirsch: Jour. Ment. and Nerv. Dis., 1898, p. 538.
4. Spiller: Am. Jour. Med. Sci., January, 1905, p. 45.

*Read before the Philadelphia County Medical Society, Dec. 27, 1905. The report of this meeting is given in this issue, page 218.

trums. Even in some of our present-day monographs and text-books on therapeutics, in which the application and uses of the better known and official remedies are fairly buried in a mass of contraindications and verbose descriptions of untoward results, we find that the indications and uses of the newer remedies are frequently copied verbatim from the advertising material sent out by the manufacturer, who usually takes very good care that this kind of literature never contains even a suggestion of anything derogatory to the product he advertises.

The medical practitioner, not appreciating that the derogatory testimony, in connection with the older and official remedies, represents the accumulated evidence of decades, if not of centuries, of continued use, naturally enough turns to the remedy that has little or nothing recorded against it. After a physician has met with repeated failures in the use of any given substance, he may casually inquire into the reason for this almost utter lack of disparaging evidence, in connection with the newer remedies. If he looks far enough he will find that one reason, and a very important one, is to be found in the fact that few, if any, of us care to give publicity to our failures, no matter in what line or in what direction.

The second, and by far the more potent and more evident, reason, however, is to be found in the fact that practically all new remedies belong to this gigantic class of nostrums that threatens to stultify and to debase the practice of medicine by suppressing all information in any way derogatory to the commercial success of any particular preparation.

"ETHICAL" PREPARATIONS.

Some of you may have the feeling that there is a deep, wide something that naturally separates so-called "patent" medicines, or popular nostrums, from the "ethical" proprietaries that are advertised exclusively to physicians.

I want to assure you, and to assure you most positively, that, at the present time at least, this chimerical something exists only in the minds of well-paid detail men, and is the justification that is so anxiously sought for by editors of medical journals that depend largely on the advertising of nostrums for their existence.

That manufacturers themselves do not appreciate this distinction is to be noted by the fact that 21 per cent., or fully one-fifth, of the members of the Proprietary Association of America are firms that exploit strictly "ethical" preparations, while an additional number of the members are connected either directly or indirectly with the manufacture, or at least the sale, of ethical preparations in addition to making nostrums for popular use.

That jobbers or wholesalers do not recognize the distinction is evidenced by the fact that antijag, antikamnia, celerina, cerebrine, curalene, opticura, ovarine and ozonine, to the number of some twenty-five or thirty thousand, nestle cheerfully side by side, in strict alphabetic order, in the proprietary medicine catalogues that are periodically issued by these firms. As for the retail druggist, he has long since found it to be to his advantage to array these articles promiscuously on his shelves, or even in his shop window, labeled at cut-rate prices.

If you were to go into the shop of the corner druggist and, as a layman, ask him to sell you an ounce of hydrated chloral, as such, he would probably refuse. If, however, you were to ask him to sell you a bottle of bromidia, he will be only too glad to supply you with practically the same amount of chloral, plus a number of other active ingredients, at cut-rates, that is, from 10 to 25 per cent. below the regular retail price. Some druggists might refuse to sell you half an ounce of acetanilid, but practically all will willingly sell full or broken packages of antikamnia, Kohler's antidote, ammonal, orangeine or a hundred and one similar compounds, including their own. Cut-rate druggists also advertise phenacetin, sulfonal, trional and even veronal, though they are prevented by a sense of decency or propriety, or it may be by law, from offering codein, morphin or cocain in their regularly issued price lists. Some retail druggists have gone even further in their zeal to popularize "ethical" proprietaries. They occasionally issue a special cut-rate price list of "Prominent Pharmaceutical Products Frequently Prescribed by Physicians." Such a little book is useful in two ways; it induces your patient to buy outright a full bottle of the nostrum that you have prescribed for him, at the same time retaining your prescription as authority for its continued use; and it also serves as an indication of the ethical preparations that are available to such of the laity who think that, because they are prescribed by doctors, "ethical" preparations are necessarily more efficient than the ordinary "patent" medicine or popular nostrum.

If the promiscuous sale of peruna, Hostetter's bitters and Pinkham's compound is to be discouraged and decried, on account of the alcohol they contain, if the sale of catarrh cures containing cocain is to be generally prohibited, what steps, if any, should be taken to discourage the promiscuous sale of such "ethical" preparations as bromidia, papin, chlorodyne, somnos and a host of other scarcely less dangerous nostrums, such as vin Mariani, that are daily sold to the laity?

ADVERTISING METHODS.

That even the most reputable manufacturers of proprietary preparations have developed a tendency to suppress the publishing of derogatory reports must be evident to all who will take sufficient interest to peruse the advertising material they send out. You have, no doubt, been appealed to by manufacturers of synthetic chemicals to report your successes with the use of their preparations. But have you ever been asked to report your failures, the untoward results that you have met with or the drug habits that have been formed? Have you ever met with an article outlining the contraindictions for the use of their remedies in the pamphlets with which these firms supply you at frequent intervals? Do you believe that the active coal-tar preparations are applicable in all cases, regardless of age, sex, or physical infirmities? Do you believe that no dangerous and even serious accidents have ever followed their use, and do you know that practically all of the well-known preparations of this character are freely sold to and widely used by the public, regardless of possible consequences? If firms that are guaranteed an absolute monopoly of their products for a period of seventeen years and are further assured of a perpetual prestige by virtue of having been the first to bring forward any given remedy in this country, will deliberately and persistently discriminate in favor of propitious and at times even garbled reports, what can be expected of firms whose very existence depends on a more or less thinly veiled trade secret? Can you even conjecture the depths of direct or inferred dishonesty to which such concerns will descend to create a market for their products?

Properly to appreciate the reasons why the present-

day traffic in nostrums should be done away with we must fully realize that the harmful effects are invariably due to promiscuous and indiscriminate use of any one of them in all, or nearly all, cases that present themselves while that particular nostrum is in vogue. While physicians themselves are largely to be blamed in this direction, it is to the cunningly worded and frequently misleading advertising matter sent out by the manufacturers that we must look for the direct incentive to the misuse and abuse of nostrums. For illustration: When the manufacturers of one of the widely advertised mud poultices claim that their preparation will cure appendicitis, it is an untruth, and in the hands of the inexperienced and the unsophisticated this statement becomes a dangerous untruth and leads to the sacrifice of human lives. When the manufacturers, or rather the vendors, of that elegant confection that "works while you sleep" claim that their product will cure insomnia, liver troubles, intestinal disorders and a host of other more specifically mentioned ailments, they are telling an untruth and a dangerous untruth, because it leads the laity to temporize with what may be serious affections, or, even worse, because the very use of this nostrum may produce a condition that requires the regular use of cathartic medicines and thus lead up to an atonic condition of the intestinal tract, chronic constipation, a reduced power of resistance and a thousand and one possible complications that may follow in their wake.

These are but suggestions of the possibilities for harm that are to be found in connection with the twenty-five or thirty thousand nostrums exploited at the present time. Even admitting that nostrums are active and efficient and that they are useful under certain conditions, they are nevertheless dangerous and to be condemned, because they are not openly and honestly put out on their merits.

From patented synthetics to liquozone and peruna is, indeed, a far cry in the world of proprietary medicines, and what a mass of trickery, deceit, dishonesty and fraud is to be found between them!

THE COUNCIL ON PHARMACY AND CHEMISTRY.

Even to enumerate all of the preparations that are advertised or available would take hours, if not days. To sort them over and to estimate their probable worth, on the available evidence, is a task that would appear to be well nigh interminable. Some attempt is now being made to sort out from this fathomless, boundless mass of material those preparations that are generally considered to be worthy of recognition or that are at least evidently less objectionable than the rest.

This attempt is being made, in connection with the American Medical Association, by the recently instituted Council on Pharmacy and Chemistry. It is the object of this council to gather evidence for and against the several proprietary preparations that are now being offered to the medical profession of this country, and by comparing the evident status of the several remedies with the rules that have been adopted as a minimum of requirement to decide on their eligibility to appear in a semi-official list or book to be called "New and Non-official Remedies."

That this effort is not being made any too early must be evident to those who realize the ever-increasing number of evidently fraudulent nostrums that are being exploited at the present time. The difficult and thankless task of selecting the more worthy proprietary remedies that confronts the members of the Council on Pharmacy and Chemistry of the American Medical Association would certainly appear to merit your attention and active co-operation.

CO-OPERATION OF THE PROFESSION.

I believe it is your duty, however, to do more, infinitely more, by taking a personal interest and an active part in this tremendously important undertaking of eliminating at least the more objectionable nostrums of all kinds from popular sale and certainly to banish from the practice of medicine the more objectionable compounds that are exploited as "ethical" preparations.

I also believe that it is the duty of each one of you individually to become thoroughly acquainted with at least some of the phases of the deceit and deception that are practiced by the promoters of proprietary medicines or nostrums and to insist that manufacturers of remedies, designed ostensibly for use by medical practitioners, exploit their wares honestly and in keeping with their merits.

I believe it to be your duty to inquire into the influences that manufacturers of nostrums, individually as well as collectively as members of the powerful and wealthy Proprietary Association of America, have exerted, do exert and will exert on the secular as well as on the professional journals of this country, and to try to overcome or, if possible, to nullify this influence by your concerted efforts and action.

It will be idle for you to suppose that any appreciable change in the existing conditions can be brought about by your say-so or by your wishes. The impending conflict, to eliminate only the more evident nostrums from the pale of respectability, while it is admittedly disagreeable and unpleasant, is full worthy of your aid and your attention. For ultimate success it will be essentially necessary that each one of you contribute, not alone occasionally but frequently and persistently. You can contribute most readily if you will insist that the untoward results from the use of proprietary medicines be given proper publicity in connection with the name of the remedy. You can also assist by informing your patients and your friends of the possible dangers that are to be encountered in the promiscuous or long-continued use of even the least objectionable and apparently most harmless nostrum.

You can also contribute if you yourself will desist from the use of proprietary medicines, with the composition or the limitations of which you are not thoroughly familiar. You will be able to do this the more readily if you will but become more thoroughly familiar with the almost inexhaustible fund of well-known and well-tried remedies of the Pharmacopeia, remedies that are easily tested, readily proved, widely used and are certainly obtainable in any section of this country.

This I believe to be your duty, as citizens of the commonwealth, in return for the protection and the privileges that are being accorded to you.

I believe it to be your duty to your patients, as physicians, in order to merit their continued confidence and patronage. And, last, but by no means least, I believe it to be your duty to yourselves, as men, in order to foster and to preserve your own self-esteem and self-respect.

Treatment of Pelvic Diseases.—Dr. J. F. W. Whitbeck says that in the treatment of pelvic diseases a knowledge of general internal medicine and of the general principles of surgery is of the first importance to the patient, and must be of the highest advantage to the physician himself.

THE TREATMENT OF LEUCORRHEA WITH THE ACTUAL CAUTERY.*

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BALTIMORE.

There are probably few members of this society who are specialists to the extent that they do not treat diseases peculiar to women. If I were to ask what symptom is complained of most frequently in your experience with such diseases, I believe the majority of you would agree in one answer. Certain it is that during several years' experience in a large clinic the question most frequently asked me by visiting physicians was, "What do you do for leucorrhea?" Rather the question was usually presented in this form, "How do you treat endometritis?" the general belief among physicians being that leucorrhea is an expression of chronic inflammation of the endometrium. Our laboratory experience demonstrates, however, that chronic inflammation of the endometrium is comparatively rare, while cervical inflammation is one of the most common of lesions.

The physician's first duty in treating a patient complaining of leucorrhea is to locate, if possible, its point of origin. In some cases, particularly those of acute gonorrheal origin, the inflammation may be confined to the vulvar region; but in the majority of the cases of longer standing the major portion of the leucorrheal discharge comes from the cervix. If the patient complains of severe pain, with periodic discharge of pus and coincident relief of pain, one must carefully examine the glands of the vulva and urethra for evidence of abscess formation. The same periodic symptoms may arise from a tubal or tubo-ovarian abscess which is discharging periodically through the uterus or through a fistula in the rectum or vagina. It may be difficult, from the history alone, to distinguish between these two regions, but there should be but little difficulty in locating the seat of the abscess by a visual and bimanual examination.

Other sources of leucorrheal discharge to be carefully borne in mind and excluded before beginning treatment are carcinoma and other ulcerative diseases of the vagina, cervix or fundus uteri, or a necrosing myoma of the fundus, or pelvic abscess from any origin discharging into the genital tract.

It is not my intention to enter into a detailed account of the present methods of treating leucorrhea. I dare say that most of you have had more or less experience with douches, tampons, vaginal suppositories and various surgical methods, and I am confident that you have had very indifferent success with most of your cases. With douches your patient has kept fairly clean during the period that she has been faithful in their use. With tampons you have had apparent complete success, and your patient has reported herself cured only to return for treatment after a period of weeks or perhaps months. Operative measures may have given better results. Deep and thorough curettage of the cervix may have given permanent results in a few mild cases. The Emmet resection of the cervix has given partial success, while with a complete amputation of the cervix your patient may have been entirely relieved of her leucorrhea.

The method that I wish to present for your consideration to-day will appeal to you because of its simplicity, and, in the event of its use, because of its results. I do not claim originality for this procedure, as it deviates only slightly from methods which we have used for a number of years.

During my early association with Dr. Kelly we often treated cases of cervical gland hypertrophy by making multiple radial incisions within the external os by means of a scalpel. This opened many of the dilated cervical glands, or Nabothian follicles, and allowed their mucous contents to gush out. I often noticed, however, that after recovery of such patients from their principal operation the cervical condition did not seem to be altered. Later it was our custom to take the hot blade of a Paquelin cautery and run it about over the hypertrophied mucosa of the cervix. This destroyed the superficial layers of tissue, causing a temporary necrosis. But as soon as the surface epithelium was replaced the leucorrhea seemed to be as profuse as ever. My method grew out of these two, and consists in radial incisions deep into the cervical tissues by means of the cautery blade. I believe the other two methods failed because the incisions with the knife-blade simply emptied, and failed to destroy, the dilated cervical glands, while the surface application of the cautery failed to either empty or destroy the deeper glands. The deep radial cuts with the cautery empty the deep cervical glands and cause such a wide necrosis of tissue that many of these deep glands are obliterated in the healing process.

One great advantage of this method is that it may be applied in office practice without giving anesthesia of any kind. With the patient in the dorsal or lithotomy position, a broad-bladed Sim's speculum is introduced into the vagina, the anterior lip of the cervix is firmly grasped with a tenaculum forceps and the cervix is pulled down as near the vulvar orifice as possible. The nurse or assistant stands by with the cautery already heated. On transferring the cautery to the operator the nurse continues to work the cautery bulb with one hand, while she retracts the Sim's speculum with the other. The operator retains the tenaculum in one hand and manages the cautery with the other. The strokes should be made one at a time, the cautery being removed from the vagina after each stroke, as the patient feels the radiated heat on the vaginal walls. The patient is warned that she will feel the heat, but that she must not move, as there will be no actual pain. An exception to this rule is found in those patients who are suffering from a painful cervical scar. This condition is rare, and when present I use preliminary anesthesia by applying for ten minutes a cotton tampon soaked with a 20 per cent. cocain solution. I have been able to relieve two cases of painful scar by this method.

The number and depth of the radial strokes depend largely on the condition of the cervix, but in general I make five or six strokes at each treatment, and burn to a depth of 2 to 5 mm., or, roughly, from one-eighth to three-sixteenths of an inch. The length of the stroke naturally varies with the conditions present, but it should extend over the area of the hypertrophied cervical mucosa, which generally covers all of the mucosa in sight. The treatments are given once in three weeks. A sterile strip of gauze is left in the vagina to take care of possible hemorrhage. The patient is instructed to withdraw this the next evening, and she is warned that the leucorrheal discharge during the first week or ten days will be more profuse than ever, and that she may have some slight bleeding. She is instructed to go to bed and remain there if the bleeding is at all profuse. I have not known hemorrhage to take place the day of treatment, but there is often a little hemorrhage after three or four days, when the necrosis of tissue is at its height, and in one or two instances this hemorrhage has been sharp enough to alarm the patient. A daily douche is

* Read before the Cumberland Valley Medical Association.

recommended during the interval between treatments. I have had three treatments produce such a beneficial effect in a marked case of leucorrhea that the patient considered herself cured and did not come for further treatment. The usual number of treatments ranges from three to six and the greatest number of treatments I have given any patient is ten. I operated on this patient in August, 1903, during an acute attack of gonorrhea peritonitis, and did a supra-vaginal amputation of myomatous uterus, associated with gonorrheal pus tubes. After recovery from the operation she continued to have a profuse leucorrheal discharge from a lacerated and hypertrophied cervix. After ten cautery treatments the cervical mucosa is devoid of any evidence of inflammation and there is no leucorrheal discharge.

I have found the chronic gonorrheal cases the most obstinate ones to treat, it being necessary to destroy all of the deep cervical glands before the leucorrhea ceases. Another important consideration in these gonorrheal cases is that you may be able to greatly reduce the leucorrhea without stopping it entirely. In other words, the cervical catarrh may cease under the cautery treatment, but the leucorrhea may continue more or less profuse because of the endometritis and the metritis which are occasional sequelæ in an ascending gonorrheal infection. But many gonorrheal infections do not gain a foothold higher than the cervix, and some which do go higher are taken care of by nature and leave no permanent lesions beyond the cervix. These cases may be classed as curable by the cautery method.

The quickest and most brilliant results are obtained in the cases of cervical hypertrophy and eversion of the mucosa due to multiple child-birth.

I am sure you are ready to question me regarding the after-results of this mode of treatment, particularly with reference to child-birth. So far as I know, but two of my patients have borne children after this treatment, and both of these had perfectly normal labors. The first of these two women was the first case that I treated by this method, and, I think, represents the most brilliant result that I have obtained. She was a young woman with a child six years old by her first husband. She had been married to her second husband two years and was most desirous of having children. This aspiration, however, seemed beyond the range of probability because of a most profuse leucorrheal discharge. In spite of douches and tampons, this discharge was so profuse that in drying about the vaginal walls it formed thick membranes, and the husband, a physician, frequently brought casts of this membrane-like formation for microscopic examination, in hopes that it might throw some light on the nature of her disease. On her first admission to the hospital Dr. Kelly thoroughly dilated and curetted the uterus and performed an operation for relaxed vaginal outlet. On a third admission, nine months later, a vaginal celiotomy was done, and the left Fallopian tube was removed because of inflammation. At this operation Dr. Kelly made a thorough application of the Paquelin cautery to the hypertrophied cervical mucosa. During her convalescence the profuse leucorrheal discharge persisted, and it was in her case that I began the method of deep radial incisions with the cautery. She left the hospital after my first treatment, and I have no record of the number of treatments I gave after her dismissal from the hospital, but I am sure that it was not more than three. After their arrival at their distant home I received frequent letters expressing deep gratitude for her delivery from the disagreeable leucorrhea, and one year after her return she had a normal labor.

While the necrosis and obliteration of the deep cervical glands must result in a scar tissue formation, I believe that with my method of radial incisions enough healthy stroma persists to prevent anything like an universal circular scar, such as we get by complete amputation of the cervix, and for this reason we need not fear dystocia at labor.

In conclusion I would again impress on you the necessity for first making an accurate diagnosis before beginning to treat any case of leucorrhea. If you find an eroded cervix and have the least suspicion of beginning cancer, be sure to place some of the suspicious tissue in the hands of a competent pathologist before wasting time in any form of treatment. If you are dealing with a fresh case of gonorrheal infection, do not use the cautery or any other form of tissue-destroying treatment that might stir up a cervical infection and carry it to higher localities. In acute gonorrhea I use first the douches and later the tampons, and if the leucorrhea persists after twelve weeks and is seen to come from the cervical glands I begin the cautery treatment. In the chronic gonorrheal cases, do not persist too long in the treatment of the cervix, for the leucorrheal discharge may depend on inflammatory conditions higher in the uterus.

1420 Eutaw Place.

Special Article

THE PHARMACOPEIA AND THE PHYSICIAN.

CHAPTER IV.

THE ACETANILID GROUP.

The enormous growth of the traffic in proprietary remedies mainly composed of acetanilid and allied substances is probably the most potent factor in arousing physicians to a realization of the part they play—often unconsciously—in furthering the selfish schemes of unprincipled manufacturers. The Council on Pharmacy and Chemistry of the American Medical Association has shown that antikamnia, phenalgin, salacetin and ammonol are mere mixtures of acetanilid with other substances, and we can no longer prescribe these acetanilid mixtures under the impression that we are using true chemical compounds. It is probable that acetanilid figures more extensively in self-drugging than does any other single substance.

Official Antipyretics.

The following are official:

ACETANILIDUM.—U. S., Br., Ger.—Acetanilid, Antifebrin, Phenylacetamid, the monacetyl derivative of anilin, occurs in colorless crystalline laminæ or powder, permanent in air, odorless, of a slightly burning taste, and very slightly soluble in water.

It was first prepared by Gerhard in 1852, but was not used medicinally until nearly thirty years later, when it was introduced under the trade-marked name of Antifebrin. It is now employed very extensively, its extreme cheapness—less than 2 cents an ounce—causing it to be used as the basis of many pretended synthetics.

Average dose: 0.20 gm. (3 grains).

PULVIS ACETANILIDI COMPOSITUS.—U. S.—This has been made official to serve as a substitute of uniform standard for the host of more or less similar compounds, such as we have enumerated above, which have come into such unfortunate vogue.

The official preparation consists of 70 per cent. of acetanilid, 10 per cent. of caffein and 20 per cent. of sodium bicarbonate.

Average dose: 0.3 gm. (5 grains).[1]

ACETPHENETIDINUM.—U. S.—Acetphenetidin, better known as Phenacetin, is official in British, German and other European countries as Phenacetinum. It is officially described as Acet-para-phenetidin, a phenol derivative, the product of the acetylization of para-amido-phenetol. Phenacetin occurs as white glistening scales or a fine crystalline powder, odorless and nearly tasteless. It is soluble in 925 parts of water and in 12 parts of alcohol. Phenacetin was patented in this country in 1889, though it is claimed to have been used in Germany at least two years previously. The patent expires next March.

ANTIPYRINUM.—U. S.—Antipyrin is official in France as Analgesin, in Great Britain as Phenazonum, and in Germany as Pyrazolonum—phenyldimethylicum. Chemically, it is described as Phenyl-dimethyl-pyrazolon, and is obtained by the condensation of phenyl-hydrazin with aceto-acetic acid and subsequent methylation of the product. Antiyprin occurs as a colorless, almost odorless, bitter tasting, crystalline powder, that is readily soluble in water and soluble in about 1 part of alcohol.

Average dose: 0.250 gm. (4 grains).

Antipyrin was first prepared by Dr. L. Knorr of Erlangen, in 1884; it was investigated physiologically by Professor Filehne, who reported it as an active antipyretic.

It will be more satisfactory to consider the therapeutics of these antipyretics collectively, with occasional comments on the separate members of the group.

They are mostly used for headache and for the reduction of temperature in fevers of an intermittent type, but it must not be forgotten that they do not remove the underlying cause, and that the use of these drugs in continued fevers is liable to be harmful, since the temperature is sure to return to its former height, or to go even higher, when the action of the antipyretic has worn off.

The alarming collapse that may follow even a moderate dose of acetanilid serves as a warning against its use when there is reason to suspect any tendency to that condition. On the other hand, a sudden lowering of the temperature in fever may result in collapse symptoms wholly independently of the nature of the remedy employed. Acetanilid has the greatest and phenacetin the least tendency to produce collapse among the official preparations of this nature. It is to overcome this tendency that caffein is used in the official compound acetanilid powder, but it is doubtful if it is of any great value in guarding against this collapse. There can be little doubt that many of the sudden deaths, of which we so constantly read, occurring without apparent cause on the streets and elsewhere, are in reality due to overdosing with nostrums containing acetanilid.

Women particularly should be cautioned against the promiscuous use of nostrums of this type during menstruation.

When it is remembered that antipyrin and acetanilid are derived from phenylhydrazin, and anilin—active blood poisons—it is not surprising that the official derivatives possess the properties of these drugs in a minor degree.

A peculiar cyanosis is often seen about the ears, the lips and the nails, particularly after large doses of acetanilid, due to its action on the red blood cells; this has been noticed even in the absence of hemoglobin in the blood.

Acetanilid in large doses causes destruction of red blood cells, and methemoglobin may be thrown into the plasma.

The collapse seen after ingestion of the antipyretics, particularly acetanilid (least with phenacetin) is due to several causes. Probably the most frequent cause is the mere lowering of the temperature which exposes the collapse actually existing but hidden by the high temperature. This result is not to be charged to the antipyretic. It is treated exactly as collapse from any other cause would be—by stimulation. Very large doses of the antipyretics act on the heart muscle, causing depression, and on the vasomotor center, causing collapse.

The acetanilid habit is not rare and it leads to a deplorable condition, but the symptoms generally disappear when the drug is withdrawn.

Profuse perspiration is a disagreeable effect, more frequently seen after acetanilid and antipyrin than after phenacetin. If this is so annoying as to demand interference, a hypodermic injection of 0.5 mg. (1/150 grain) of atropin will be found effective. Redness and irritation of the skin are frequently seen after the use of the various antipyretics of this group. They are probably due to vasomotor changes.

Antipyrin in solution has been used extensively to check the bleeding of superficial wounds, and all the various members of this group are to some extent antiseptic.

While so much space has been devoted to the contraindications and untoward effects of these agents, it is not with a view of discouraging their use, but rather that the physician may avoid the disappointments which arise from their use in unfavorable conditions.

Acetanilid may be given alone in powder or in capsules, in adjuvant or aromatic elixir, or suspended in syrup or mucilage of acacia. The compound acetanilid powder affords a convenient form for the relief of headache. A dose of 0.3 gm. (5 grains) in powder or capsule is usually effective; this may be repeated once an hour if necessary, but the more frequent repetition is to be avoided.

Compressed tablets of such insoluble substances as phenacetin and acetanilid are not recommended as they disintegrate slowly.

An acetanilid powder, containing ammonium carbonate instead of caffein, is used in the German Hospital of Philadelphia,[2] when it is desired to avoid the cerebral stimulation of caffein.

Antipyrin is very soluble in water and in alcohol, and hence it may be given in simple aqueous solution, in aromatic elixir or in powdered form.

Acetphenetedinum (phenacetin), being less objectionable than acetanilid and antipyrin, may be expected to replace them very largely when its price is reduced. Its insolubility in water has led to its extensive use in powder and in capsules.

A combination of phenacetin, caffein and sodium bromid has attained considerable popularity; these may be combined in various ways.[3]

Chemistry of These Preparations.

A brief review of the chemistry of the antipyretic group will show the relationship of the various members to each other.

Quinin being a derivative of quinolin, many attempts were made to produce it synthetically, with the resulting discovery of a number of quinolin derivatives which possess antipyretic properties, but all of them dangerous because of their tendency

1. It should be noticed that the dose of acetanilid in the mixture is larger than the official dose of acetanilid; yet it is supposed to act more effectively when mixed with sodium bicarbonate. It is to be regretted that such a combination has been given official recognition. The reason, of course, is evident—persistent advertising of certain nostrums has created an abnormal demand for acetanilid combined with a supposed heart stimulant. But, as it is extremely improbable whether caffein does counteract the harmful effects of acetanilid, it is not wise to recognize such a combination even to meet a supposed demand.

2. R. Acetanilid
Sodii bicarb., of each ..... grs. xxii 1 | 5
Ammon. carb. ..... grs. xi | 75

This is sufficient for ten powders of about 0.3 gm. (5 grains) each, one being given every three or four hours to reduce fever. For headache one is given and repeated if necessary in an hour.

3. R. Acetphenetidini (phenacetin) ..... grs. xv 1
Caffein ..... grs. viii | 5
Sodii bromidi ..... ʒi 4
Elixir adjuvant ..... ʒi 30

The mixture is to be shaken and two teaspoonfuls given as a dose. This is often used for headache, one dose being usually sufficient.

Still another, widely used, acetanilid mixture is a migraine elixir that is being exploited by a number of manufacturers. A representative formula, for a preparation of this kind, may be given as follows:

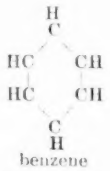
R. Acetanilidi ..... gr. xxx 2
Caffeinæ ..... gr. iii | 2
Sodii bromidi ..... ʒii 8
Alcoholis ..... ʒi 4
Elixir aromatici, q. s. ft ..... ʒiii 100

Average dose 5 c.c., or 1 teaspoonful.

If 20 c.c. of tincture of cardamon be added to this, or if adjuvant elixir (which is also official), be used instead of the aromatic, the appearance of the mixture will be much enhanced and the psychical effect increased.

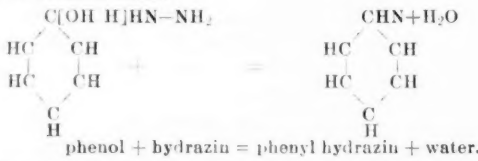
to produce collapse. All of these are now practically obsolete.

Another substance having antipyretic and collapse actions is phenylhydrazin, which is of interest because of its derivative, antipyrin. Hydrazin N_2H_4 (or $H_2N—NH_2$), which is formed by the union of hydroxylamin and ammonia, usually exists in combination with an organic radical. Starting with the benzene ring, C_6H_6, or



benzene

phenol (carbolic acid) is formed by replacing an H with OH. If this OH in turn be displaced by the hydrazin radical, phenyl hydrazin is formed thus:

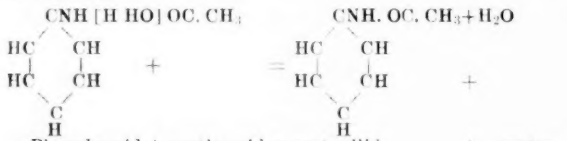


phenol + hydrazin = phenyl hydrazin + water.

Though many derivatives of phenyl-hydrazin have been exploited, antipyrin and its compounds are the only ones in general use.

When the practitioner uses drugs which at best are so potent for harm he will do well to employ them in their simplest form rather than in such unofficial combinations as hypnal (chloral and antipyrin) or salipyrin (salicylic acid and antipyrin).

Acetanilid or phenyl-acet-amid is obtained by the action of boiling glacial acetic acid on anilin or phenyl-amid, as it may be termed. By introducing "acet" before "amid" the chemic name is derived.

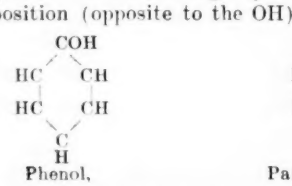


Phenyl-amid (anilin) + acetic acid = acetanilid + water.

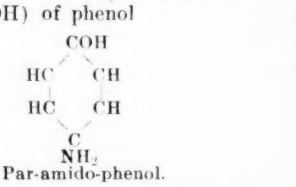
When other acid radicals replace that of acetic acid similar compounds are formed, which are in no wise superior to the official. Thus we have benz-anilid and exalgin (or methyl acetanilid), the latter differing from acetanilid only in having a CH_3 group replacing an H.

It will be understood from its chemistry why acetanilid can be prepared so cheaply and, therefore, why it is so extensively employed in the nostrum traffic.

Phenetidin is important as the basis of the phenacetin group. Chemically it is the ethyl ether (sulphuric, so called) of amido-phenol. If an amid group (NH_2) replaces the H in the para position (opposite to the OH) of phenol



Phenol,



Par-amido-phenol.

we have par-amido-phenol, and if the OH is then replaced by ether we have phenetidin. Various acid radicals may replace an H of the NH_2. If it be the acetic acid radical we have phenacetin, if lactic acid we have lactophenin.

These formulas may appear complex, but a careful examination of them will show the relationship existing between the various members of the group. If a practitioner finds the official phenacetin unsuited to his purpose in a given case, it is not probable that another compound, differing merely in the nature of an acid radical, will prove more beneficial.

Among the phenetidin series there are, besides the official phenacetin, many in which the syllable "phen" indicates the phenetidin source. They include phenocoll, salophen, lactophenin and many others.

We shall have occasion to mention urethane (ethyl carbamate) among the chloral hydrate group, and it may be said that several of its derivatives have been used as antipyretics, but they do not merit further consideration here.

In connection with the subject of antipyretics we may mention a number of substances which, except historically, are now of little interest. Kairin, discovered by Dr. O. Fisher in 1882, was the first of the coal tar compounds to be introduced as an antipyretic on the strength of physiologic experiments. It was also one of the first of the medicinal synthetic chemicals to be patented. The older physicians may remember its widespread use and some of the exaggerated claims that were made for it and how, despite this, it fell into disfavor and was soon forgotten.

Thallin, made by Dr. Skraup in 1884 and investigated in the clinic of Nothnagel, soon shared the fate of kairin, despite liberal advertising.

RESORCINOL.—U. S.—Resorcin (U. S. P. 1890) discovered by Hlasiwitz and Borth about 1862, was used as an antiseptic and later as an antipyretic, but was found to be too dangerous for the latter purpose. It may be absorbed even after external application, when its effects resemble those of phenol (carbolic acid).

The official salicylic acid, discovered in 1839, was introduced as an antiseptic in 1873 and later as an antipyretic. The salicylates now find their greatest usefulness in the treatment of acute rheumatism. They will be discussed later.

THE CHLORAL HYDRATE GROUP.

The chloral hydrate group includes, besides Chloral Hydrate, Chloralformamid (Chloralamid), Paraldehyd, Ethyl Carbamate (Urethane), Sulphonmethane (Sulphonal ond Sulphonethylmethane (Trional). Several of these preparations are so well known that we may dismiss them with a few words, but some of them may be profitably discussed at greater length.

It is easy to drug anyone into unconsciousness, but the members of this group do not possess curative properties and at most they only secure rest and sleep for the patient. Chloral hydrate is dangerous and we wish to point out some of the dangers attending its use, either alone or in the nostrums which contain it.[4]

All authorities agree that it is unjustifiable to use large doses of chloral hydrate, either alone or in combination with other official drugs. When a moderate dose of chloral hydrate fails to induce sleep in cases of severe pain, it is very much more rational to give a dose of morphin, or other analgesic, than to repeat the chloral hydrate indefinitely. The chloral hydrate habit is not rare, and if its sale at cut rates in the shape of nostrums with fanciful names is to go on unchecked, we can hardly hope to see any diminution of the baneful practice. When we employ hydatid chloral and sodium, or potassium bromid in simple solution it is with full cognizance of the danger, but because the exigencies of the case demand their use, and we only use them with caution.[5] In a general way the contraindications for chloral hydrate are the same as for chloroform. In the present edition of the Pharmacopeia it is official as:

CHLORAL HYDRATUM.—U. S.—Hydrated Chloral.

Average dose: 1 gm. (15 grains).

Of the unofficial, more or less closely related drugs, hypnal (antipyrin and chloral hydrate) has been mentioned. Dormiol

4. In Chapter II attention was called to Bromidia, which is directed to be given in as much as teaspoonful doses every hour until sleep is produced, pain being mentioned as one of the indications for its use. Since chloral hydrate is not an anesthetic, except in unsafe doses, it is readily seen how dangerous this advice is, particularly when we are dealing with such intense pain as that encountered in appendicitis, even admitting that the preparation contains the other ingredients claimed.

5. A fairly safe and very efficient hypnotic commonly used in Bellevue Hospital in New York affords a convenient form of using sodium bromid with hydrated chloral.

R. Chlorali	grs.	xx	1 30
Sodii bromidi	grs.	lxxx	5 20
Syr. aurantii cort.		3iv	16
Aquæ q. s. ad		3i	30

M. Two teaspoonfuls are given at a dose, and this may be twice repeated at intervals of an hour if necessary, but more than two doses are rarely required in the absence of severe pain.

The hydrated chloral may be slightly increased in the prescription in which case the dose should not be repeated more than once.

is a combination of amylene hydrate and chloral hydrate, while chloralose, a combination of chloral hydrate and glucose, partakes of the action of morphin and is rather expensive. Chloretone, a more recent product, is not entirely devoid of danger and is not always so certain in its action as chloral hydrate, while butyl chloral hydrate, or croton chloral hydrate, is one of the older compounds that has been found wanting and is now little used. Of the official compounds of this group we have:

Chloralamid and Paraldehyd.

CHLORALFORMAMIDUM.—U. S.—Chloralformamid. Chloralamid. This has practically the same action as therapeutic doses of chloral hydrate, the latter being formed in the body by decomposition of chloralformamid.

Average dose: 1 gm. (15 grains).

PARALDEHYDUM.—U. S.—Paraldehyd is slower in its action transparent liquid, slower in its action than chloral hydrate, but also safer. It has the disadvantage of a persistently disagreeable taste and odor. It is locally irritant and should not be used in irritable conditions of the stomach. It may be prescribed dissolved in 10 parts of water or in aromatic elixir, and is best administered cold, or followed by a cold drink.

Average dose: 2 c.c. (30 minims).

Sulphonal and Trional.

SULPHONMETHANUM. — U. S. — Sulphonmethane, Sulphonal, Diethylsulphonedimethylmethane, and

SULPHONETHYLMETHANUM. — U. S. — Sulphonethylmethane, Trional, Disulphonemethylethylmethane, may be considered together as they differ chemically only in the addition of an ethyl group in the latter.

Average dose of either: 1 gm. (15 grains).

Therapeutic Action.

The therapeutic action of these two preparations is practically identical, and the closely related tetronal might also be included in this statement. Trional is somewhat more soluble than sulphonal. While these substances are safer than hydrated chloral they are not wholly free from danger, as fatal cases of poisoning have been reported and the sulphonal or trional habit, while of more recent origin, bids fair to equal if not to excel the chloral habit in the number of its victims. These agents are usually given in powder, and owing to their slow absorption, should be given about two hours before they are expected to act. To insure more speedy action they may be given in solution, for which purpose they are dissolved, or at least suspended, in a cup of hot milk.

Urethane.

ETHYLIS CARBAMAS.—U. S.—Ethyl Carbamate, Urethane. This is a new official preparation which is claimed to be much safer than chloral hydrate, to which it would be distinctly superior but for the fact that its action is not so certain and because tolerance is soon acquired. It is best given in water, in which it is very soluble. The average dose is - gm. (15 grains).

THE BROMID GROUP.

The bromid group is so well known that it requires little therapeutic consideration here, but it is of considerable historic, as well as of practical interest. Potassium bromid was introduced by Balard about 1826, who supposed it to have properties analogous to those of potassium iodid. It was not until some time after 1850 that the present, sedative, uses of the bromids were accidentally discovered. During the past four decades the several alkaline bromids have received considerable attention and several of them are now official in every pharmacopeia. In our own Pharmacopeia, in addition to monobromated camphor, hydrobromic acid and the hydrobromids of a number of alkaloids, we have ammonium, potassium, lithium, calcium, sodium and strontium bromids official.

The average dose of any one of these alkaline bromids is 1 gm. (15 grains).

The abuses that have arisen in connection with substances belonging to this group are largely due to the misrepresentations that are made in connection with the efficiency or the character of the preparations containing them.

Strontium salts, particularly the bromid, were brought forward some years since, at exorbitant prices, as being infinitely superior to the corresponding compounds of other elements. Experience has shown that, in the main, these claims were unfounded, though many, even now, claim that strontium bromid disturbs the stomach less than the corresponding sodium or potassium salt. Another claim that is frequently made by manufacturers of nostrums, like "Peacock's Bromides," is that they use "chemically pure" salts. Exactly what is meant by this claim is difficult to say, but the Pharmacopeia gives us a number of readily applied tests by which the salts themselves may be tested. The manufacturers of nostrums, on the other hand, not infrequently add the very substances that are considered contaminations.

(To be continued.)

New Instrument

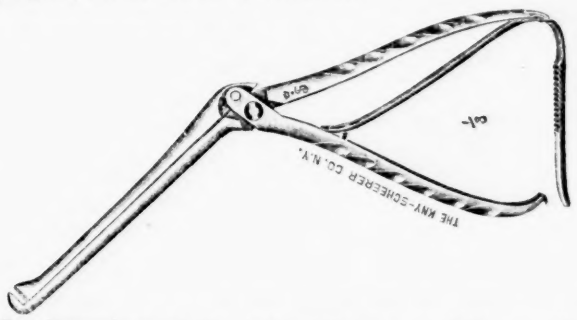
A NEW NEEDLE HOLDER.

JOHN EGERTON CANNADAY, M.D.
Surgeon in Charge Sheltering Arms Hospital.
PAINT CREEK, W. VA.

I have for some time felt the necessity for a needle holder which would give easy access to the deeper and less accessible cavities of the body, for example, the pelvis, the cardiac portion of the stomach in certain gall bladder and other cases, more especially in subjects having much adipose and muscular tissue. At the same time I desired a strong needle holder for purposes of general utility and one in which the closed hand on the handle would not in any way obscure the operator's field of vision.

The usual holder often fails to secure the needle firmly when tissues of any degree of resistance are encountered. More particularly does this obtain should the needle be a trifle dull. Several types of holder break the needle if too firmly closed.

Bearing the above in mind, I have had a pistol grip or angular needle holder made which consists of four parts, an upper jaw branch, a lower jaw branch, which is continuous with the upper handle; a separate lower handle, which is connected with upper jaw branch by a lock, and a spring with ratchet catch. The upper jaw slides on the lower one by means of a runner dovetailed into a slot in the lower jaw. The parts holding the needle are finely serrated.



The dimensions of the instrument are as follows: From back at angle of holder to jaw, 4⅜ inches; from back to bottom of handle, 4¾ inches.

This I find to be a suitable length for work in most of the deep cavities of the body. Surgically speaking, a shorter holder would be better suited for work on exterior parts of the body.

The holder can easily be taken apart or assembled. By bringing the lower handle forward it can be unlocked, and the upper jaw can then be drawn out of the slot.

The advantages are: It renders areas comparatively difficult to reach more accessible; the hand is kept out of the line of vision; the needle is held firmly without breaking it; any kind of surgical needle is held perfectly, be it long, short, curved, straight, round, Hagedorn, flat, large or small. While it is easily taken apart for cleaning and is readily assembled, this instrument will not fall apart if handled with the ratchet open, as do some others. The arrangement of fulcrum, weight and power is such that a firm grasp on the needle is obtained by comparatively slight muscular exertion on part of the hand.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

103. DEARBORN AVENUE . . . . CHICAGO, ILL.

Cable Address . . . "Medic, Chicago"

Subscription price . . . . . Five dollars per annum in advance

SATURDAY, JANUARY 20, 1906.

CHEMISTRY OF OSTEOMALACIA.

There is probably no class of diseases that is so little understood, and for which it is so difficult to obtain any conception of the etiology, as certain bone diseases. In the bone diseases in which the etiology is known, as in those of an infectious character, the processes going on are not at all understood. This is true in part because so little is known of the chemistry of bone metabolism. Of all the various chemical processes in the body, that which gives rise to bone formation appears to be the simplest because of the inorganic constituents involved whose chemistry is so thoroughly known. While the resulting products are known, however, as is true in many other tissue reactions, the manner in which these substances are brought there and the processes occurring before the final products appear are mostly in the realm of speculation. Bone absorption also is a process of the real nature of which we have little conception. We can not hope, therefore, to have a very clear understanding of diseases in which either the formation or absorption of bone is involved until much more is known about the process of normal calcification. Diseases of this kind should be studied carefully from the chemical point of view, for not only is it possible to obtain facts of importance in determining the nature of the disease, but it is also possible that such pathologic data may be of much importance in elucidating obscure points in normal physiologic processes.

It is with interest, therefore, that we note the recent contributions to the chemical study bearing on such problems as those referred to above. Wells recently reported before the Chicago Pathological Society the results of his studies on the chemistry of calcification. Using calcified material from tuberculosis and from other sources, he found a close correspondence between the proportion of inorganic constituents here and in normal bone. While not definitely demonstrating it, his results indicate that in these processes the fatty acids do not play an important part by combining with the calcium to form soaps. His experimental studies with animals showed the important fact that cartilage has the peculiar property of taking up the inorganic constituents much more rapidly than other tissues. The explanation of this probably depends on certain physical phenomena (absorption). Facts of this kind, of course, have a direct and important bearing on both normal calcifying processes and pathologic conditions.

A chemical study of the metabolism of the obscure bone disease, osteomalacia, has recently been reported by Goldthwait, Painter, Osgood and McCrudden.[1] This study was made in a case in which castration was performed for therapeutic purposes, and an opportunity was thus offered for a comparison of the metabolic products before and after the operation. From a chemical study of the food of the patient and the urine and feces it was found that there is a very marked increase in the excretion of calcium, chiefly in the urine, while there is a retention of sulphur and a small amount of magnesium. These results are interpreted as indicating that a decalcification of bony tissue occurs and that the calcium is replaced to a slight extent by magnesium, but chiefly by an organic substance rich in sulphur, similar to but not exactly like normal organic matrix. By castrating during this period of decalcification the process is reversed; that is, calcium is retained and there is a tendency for the sulphur metabolism to correct itself, though this is not very marked. These results agree with those of Neumann, who has also noticed the additional fact that in severe cases, when the disease has lasted a long time, the decalcification process comes to an end, and then castration is without avail in rectifying the metabolic processes. The histologic studies of osteomalacia made by others tend to support such conclusions drawn from chemical data. In sections of bone there is seen a zone of osteoid tissue on the margin of the trabeculæ, in which may be seen the remains of the bone corpuscles. Along the osteoid tissue in close contact with it is a layer of cells, apparently belonging to the connective tissue type and suggestive of the idea that in some way these cells are concerned in the process of bone disintegration.

Just how the decalcification is brought about in osteomalacia is a problem about which there has been much theorizing and some experimenting, but it still remains unsolved. To lactic acid has been attributed the cause of the decalcifying process because it has been found in the urine. In this disease a decrease in the alkalinity of the blood has been observed, and this has been used to support the acid hypothesis. Lactic acid, however, occurs in the urine in other conditions with no softening of bones, and it does not occur constantly in the urine in this disease; the titration methods used to determine the alkalinity of the blood are not trustworthy and are of little importance, so that there is not much to substantiate the acid theory. Other acids, as carbonic and oxalic acids, have been suggested as playing some part in the process, but there is little or nothing to support such an idea.

The most rational view of the bone changes in osteomalacia appears to be that the normal function of either the marginal cells or bone corpuscles or both is so altered by certain substances, such as an abnormal ovarian secretion, and perhaps under certain circumstances other

1. Am. Jour. Phys., 1905, vol. xiv, p. 389.

substances also, that there results an abnormal absorption of the inorganic constituents. The deposition and absorption of substances depend on the chemical equilibrium of the cell, and only a slight shifting of this either way is necessary to give rise to extensive lesions in the form of osteoblastic or osteoclastic changes.

THE COMING OF AGE OF PHAGOCYTOSIS.

In 1884 two important articles on phagocytosis by Metchnikoff were published, so that it may be considered that this theory has just passed its majority. If at any time in its history a theory may be judged on its merits, it is when it has reached its maturity, and Professor Metchnikoff's[1] recent book on "Immunity" supplies the details on which to base judgment.

Metchnikoff reviews the course of opinion from the first announcement of the theory, when Virchow, with his wonderful capacity for recognizing the truth, even when distinctly novel, was the only prominent pathologist to give it a welcome, to the present day, when practically every one concedes that phagocytosis is the most important element in the production of immunity, and when many consider it to be the origin of the most powerful immunizing forces within the body.

It is not strange that the theory of phagocytosis should have been looked at askance when it was first announced. In his presidential address before the Liverpool meeting of the British Association nearly ten years ago, Lord Lister said: "If ever there was a romantic chapter in pathology, it has surely been that of the story of phagocytosis." That the white cells of the body should array themselves in serried columns at points where bacteria were invading the tissues and at the call of some unknown force be ready to lay down their lives and be thrown off as dead pus cells for the protection of the body was an idea that could scarcely help but appear chimeric. Besides, the originator of this theory was not particularly known in the world of pathology. He was doing his work in Russia and it seemed as though the theory were the result of an almost oriental imagination rather than that of serious long-continued investigation.

Metchnikoff's theory, however, was founded on observation of the most acute and original kind. Consequently it was destined, in spite of many vicissitudes of opinion, not only to hold its own, but gradually to occupy the position of master spirit in the important field of immunity. All sorts of argument have been used against it. At first the writers of the best known text-books on pathology rejected it on *a priori* grounds; men like Baumgartner and Ziegler, and Weigert and Flügge at first refused to consider phagocytosis seriously, but now they recognize its supreme significance. The tracing of the gradual change of opinion of these distinguished pathologists in the various editions of their text-books is one of the most interesting parts of Professor Metchnikoff's historical sketch of immunity.

It is curiously interesting to find just where in the realms of physiology and pathology the author of phagocytosis considers it to have a proper place. Phagocytosis is entirely in harmony with cellular pathology and coordinates our advance in knowledge in the nineteenth century much better than does any other theory of immunity. In the domain of physiology it ranges itself quite readily as one of the phases of the digestive processes within the body. Metchnikoff does not hesitate to say that as a consequence of this theory the study of immunity comes into the chapter on digestion regarded from the general point of view.

Though the subject is treated from a pathologic standpoint, it is only what might be expected from Metchnikoff that practical suggestions should occur here and there, some of which may prove to be of great value. For instance, in the closing chapter, which is a summary of all the work that has been done on immunity in the last twenty-five years, he suggests that phagocytosis may yet prove to be the surgeon's most efficient aid in the prevention of septic complications after operations.

He says: "We may even attempt to increase phagocytosis in surgical operations, especially in those on the peritoneal cavity, by there setting up an artificial aseptic inflammation, by means of various substances, innocuous in themselves, which attract a large number of leucocytes. In laboratory practice, this method is in daily use for the purpose of increasing the resistance of an animal against intraperitoneal injections of various micro-organisms, and Durham has suggested the extension of the same method to human medicine. Certain surgeons have already made attempts in this direction."

The author of the phagocytosis theory well deserves the congratulations of the medical profession on the coming of age of what has become so important a doctrine in the pathologic world.

PREPARATION OF ENDOTOXINS.

There is a small group of bacteria which, when grown in artificial media, produce substances that have marked toxic properties. In the given case this substance may be easily freed from the bacteria by filtration and is usually called the soluble toxin. Such bodies, of which diphtheria and tetanus toxins are typical examples, have received a large amount of study and are fairly well known. When introduced into the animal body there is produced a substance—the antitoxin—which counteracts their effect. The mechanism of the interaction of these bodies is fairly well understood and it is through the application of this knowledge that modern medicine has achieved some of its most successful results.

There is another and apparently larger group of organisms which, when grown on artificial media, do not

1. "Immunity in Infective Diseases," by Elie Metchnikoff. Translated from the French by Francis G. Binnie, University of Cambridge.

produce soluble toxic substances, but which, however, in the infected body give rise to symptoms that indicate the presence of violent toxins. Typhoid and cholera bacilli may be mentioned as typical examples of this class. If cholera bacilli, for instance, are grown for a few days in liquid media and the culture filtrated, the filtrate has practically no toxicity. The bodies of the bacilli, however, even though killed, are highly toxic as a result of their disintegration by the body fluids when introduced into animals. If an old culture which has stood in the incubator for several weeks is examined the toxicity is found to be considerably increased. Evidently, then, the toxic principle resides firmly fixed in the bacterial body; it has been called, therefore, an intracellular toxin or endotoxin. It is of a different character from the soluble toxin, being, as a rule, much less intense and not having the property of causing the production of real antitoxins in the body of the host; at least no antiendotoxins have so far been produced. Because of this fact the application of curative serumtherapy to diseases caused by this class of bacteria has been largely devoid of positive results.

Much work has been done with a view of obtaining these endotoxins from various bacteria in concentrated form for the purpose of producing antibodies that may be of service in the prophylaxis and treatment of the disease. McFadyean claimed that he obtained a toxic body by grinding and extracting typhoid bacilli rendered brittle by the temperature of liquid air, and for this substance he said an antibody could be obtained. It has not as yet been proved of practical value in treating the disease. Wright's method of vaccination in typhoid fever, which has been used so extensively and with apparent success in the British army, consists in the introduction into the body of typhoid bacilli killed by heating to 60 C. The endotoxins are liberated by the action of the body fluids, producing a marked reaction, and there subsequently results the formation of bactericidal substances which protect the individual from a later infection. The use of the products of autodigestion of typhoid bacilli has also been suggested by Neisser, and the reaction is said to be less marked.

Besredka[1] has suggested the liberation of the endotoxin *in vitro* by treating the dried typhoid bacilli with normal horse serum for several hours and then separating the fluid from the bodies of the bacilli by the centrifuge. He states that the bodies of the bacilli are much less toxic than before treatment with the serum, while the fluid is distinctly toxic. The former he calls atoxic bacilli, and with them he is able to confer immunity in animals by using them as a vaccine and without any of the deleterious results which occur in using the bacilli before such treatment. The liquid endotoxin kills 300-gram guinea-pigs in peritoneal doses of 1.5 c.c., is precipitated by alcohol, and is destroyed by heating to 57 C. for fifteen hours. It is also neutralized by an anti-endotoxic serum obtained by injecting typhoid bacilli—living or dead—into the veins of the horse. Besredka in the same manner has obtained the endotoxin for the pest bacillus, and found it likewise to be a fairly thermostable body which is neutralized by an antipest serum.

Slatineano,[2] employing the same technic as Besredka, obtained an endotoxin from Pfeiffer's bacillus (*B. influenzæ*) in such concentration that .5 c.c. injected into the brain of a guinea-pig killed it in sixteen hours with marked lowering of the temperature. Small quantities injected into the peritoneum also produced death with characteristic symptoms.

We give these results as indicative of what is being accomplished by experimental investigators of the problems presented by endotoxins. Whether actual anti-endotoxins have been discovered remains to be seen. This method may provide a means, however, of obtaining certain bodies in a more suitable form for work, and perhaps some interesting results may develop. The use of the so-called atoxic bacilli for immunization recalls Behring's announcement of the therapeutic effect of tubercle bacilli freed from certain toxic and injurious substances.

1. Ann. de l'Institut Pasteur, 1905, vol. xix, p. 477.

2. Comp. rend. Soc. de Biol., 1905, vol. xlix, p. 339.

THE HOUSE FLY.

Two articles have recently appeared which may seem to indicate how the extremes of the pendulum too often characterize scientific presentations. The subject in this particular instance is the part played by the house fly in the causation of tuberculosis. One writer[3] attributed to this source so large a proportion of cases of tuberculosis that on sober reflection one must surely regard his views as exaggerated. The other writer[4] rather vehemently declared that the house fly is almost never an etiologic factor in this disease.

The judicious have here especial reason to grieve, for the propaganda against tuberculosis now being carried on is one which will certainly redound enormously to the well-being and the happiness of mankind if it be based on temperate, just and scientific deductions from accurately observed facts. We emphasize this "if"; for otherwise unreasonable and far-fetched statements, such as must seem absurd to the laity, will certainly prevent the goodly measure of fruition which the present campaign against tuberculosis should rightfully enjoy. We are in the habit of scolding the laity for its phthisiophobia—and our position here is somewhat grotesque; for this fear of consumption is in great measure developed in the lay mind by means of the intemperate and ill-balanced statements of medical men. Exaggeration may carry its point at the bar or in the pulpit; but moderation of statement is an essential—an absolute essential

3. J. O. Cobb: "Is the Common House Fly a Factor in the Spread of Tuberculosis," Am. Med., March 25, 1905.

4. T. J. Mays: "The Fly and Tuberculosis," N. Y. Med. Jour., Aug. 26, 1905.

—of the scientific mind. Undoubtedly, the house fly has been the carrier of tuberculous infection. No one can doubt this who has seen the nutrient film exhibited in the recent Tuberculosis Exhibition in New York City, on which flies that had previously been deposited on tuberculous sputum had walked; colonies of tubercle bacilli developed along the tracks which these flies made on the film. On the other hand, tuberculosis is of course disseminated in other ways than by flies.

The excessive infant mortality and the wide prevalence of typhoid fever would seem to be due in some measure to the *Musca domestica*. Milk, states Dr. J. T. C. Nash,[5] is one of the favorite foods of flies. Especially in the homes of the poor is this nutritious fluid open to their depredations. Thus is the milk contaminated with the excreta of flies and with the noxious matter clinging to their feet, and here the germs deposited must find a favorable culture medium. Nash has made a series of observations regarding the coincidence of infantile diarrhœa with the number of flies. He concludes that milk is liable to pollution even more after delivery to the consumer than before it reaches him. Happily, much attention is now paid to flies in dairies. A measure emphasized by Dr. L. O. Howard is based on the fact that most house flies breed in horse dung; and the stable is generally an accompaniment of the dairy. Farmers and dairymen, therefore, should keep flies from manure pits, a proceeding easy of performance. Thus not only would infant mortality be reduced, but the number of typhoid cases would be decreased. Here, perhaps, may be an explanation of why city dwellers so often return from their vacation smitten with typhoid fever. May not the house fly have been responsible for many cases that have been attributed to "tainted" wells?

In our Spanish war it was abundantly demonstrated that the most careful system of water supply is unsatisfactory if the sewage system is bad and if flies are permitted to pollute the food and drink. One must observe that all the other conditions which produce typhoid—bad sanitation, diet, lowered vitality and the like—exist all the time; while the multiplication of typhoid cases coincides with fly time. With regard to cholera, Chantemesse has demonstrated the rôle played by flies in the dissemination of the specific germ. Fortunately, however, as he has shown, the cholera bacillus in flies loses its virulence after forty-eight hours.

5. Journal of the Royal Sanitary Institute.

DEGENERATED SYMPATHY.

There is no limit to the extremes to which the professed well-wishers of the race will go. A little while ago we noticed the recommendation of a reforming woman to kill off the incurables, and now comes another one who advises murder of the children of the slums lest they should grow up to future poverty and misery. Perhaps, however, the most notable moral aberration is that of the distinguished ex-Harvard professor, Charles E. Norton, who comes out boldly for making away with the so-called hopelessly insane, diseased or injured. Professor Norton is a sort of an esthete, and morals and esthetics do not always coincide, in spite of theories. In fact, we have learned to be somewhat suspicious of the moral convictions of those who profess to cultivate the esthetic sense to any extreme, and Professor Norton is apparently not an exception. While his published letter may give some impetus and encouragement to Miss Hall and her followers, it will not command much consideration from sensible people, and certainly not from the mass of the medical profession. He utterly misjudges the motives of physicians in asserting that they are deterred to any extent from following the course he advocates by the mere desire to avoid responsibility or to show their skill in overcoming difficulties. The ethics of the profession are apparently little understood by him and his kind.

CONTRACT PRACTICE.

Medical societies at various points throughout the country are condemning contract practice, more especially that form known as lodge practice, by which certain organizations exploit the medical profession. While the evil in this country is not so great as in Great Britain, it is sufficiently serious to enlist the attention of the profession. A recent instance shows not only the spirit of these organizations, but also affords an example of a thoroughly temperate yet absolutely unanswerable statement of the medical side of the question. A few weeks ago the Shasta County (California) Medical Society unanimously adopted resolutions condemning lodge practice as it there existed and pledging its members to have no professional intercourse with lodge-contract physicians — resolutions which were thoroughly justified by their experience. This called out a series of resolutions from a local benefit society denouncing the medical society's action and claiming fifty years' precedent and all sorts of moral claims for its conduct of the lodge contract medical service, and denying the right of the medical society to have anything to say about it. In reply the medical society shows that its resolutions were not aimed at the existence of fraternal organizations, or even at contract practice generally, provided that reasonable compensation was given. It pointed out that while corporations paid a certain rate, which might not, perhaps, be considered too low, the lodge practice rates were only 10 per cent. of those of the corporations and that, assuming the $1 a month for each employé provided for by the corporations as reasonable, the fraternal order demanded that the physician should take 90 per cent. of that out of his own pocket for their benefit and serve its members and their families at an average rate of 10 cents a month for each individual. It was only when the lodge placed a valuation on its services comparable to those of the bootblack and peanut vender that the society made its protest. Certainly, if it should be condemned it should only be for its forbearance. It is a curious fact that the majority of these fraternities are largely made up of working men, who are in their organizations wide awake enough to secure every pecuniary advantage in their contracts with those to whom they render service, but are even more zealous, apparently, to take advantage of

those whose services they demand. It is certainly time, when conditions are such as existed in this California instance, that the medical profession should take a stand in its own behalf, and it is only by organized effort that this can be successfully done. The case is not a unique one, even in this country, and our British confrères have had many analogous experiences. While human nature is as it is, we must expect injustice if we choose passively to permit it, and that from those who make the highest professions of general charity and benevolence. A professed love for all mankind is, as Thackeray says, a very vague and indefinite sort of virtue, and when the said love and charity are specially focused on fellow-members of a lodge they are naturally very diluted for outsiders. There is no profession that exercises the virtue of charity more than the medical profession, and we would not have it otherwise, but that does not imply the necessity of our unresistingly submitting to gross injustice, such as is inevitably the consequence when lodge practice is unrestrained.

PROFIT IN NEW YORK'S GARBAGE.

If a sanitary measure is cheaper in its execution than an insanitary method, the combination is a pretty strong one, favoring the hygienic method. For years the street-cleaning department of New York City was accustomed to dump garbage in the sea, and as a result the floating portions formed an unsightly and unsavory fringe along the shores of New York City and suburbs, while the heavier parts formed dangerous shoals. A recent report[1] of the present method of disposition shows a profit instead of an expenditure. The heavier portions of the refuse have been used to fill in eighty-four acres of land along the shore, each acre being estimated to be worth $10,000 (and eighty other acres of less value). Other refuse is sold for salvage and the money received from the salvage contractor runs a lighting plant to illuminate a number of city buildings and public schools. Another portion of the refuse is used as fuel in this lighting plant. Thus was achieved an immense improvement, and the profitable result—representing an income of $52,000 yearly instead of an expense— is a good example for other municipalities.

THE NOSTRUM EVIL.—*The Kentucky Medical Journal* hopes "that Kentucky doctors will give this . . . whole matter earnest thought, and will arrive at definite conclusions as to their duty in the matter of nostrums. They should give their own journal an active support in this fight which it is waging against this evil, with the assurance that the end is not yet, and that many bitter fights will have to be won before we will be able to free ourselves from these crafty ones, who smother and flatter us, and behind our backs smile at the guilelessness which permits us to be docilely exploited to their great gain and good. More than this, look over the pile of journals on your table, and when you find an improper thing advertised, write to the journal protesting, and asserting your disapproval; or take other and still more drastic means of assuring editors and publishers that you are awake and alive to their misdemeanors."

1. Scientific American, Dec. 30, 1905, p. 522.

Medical News

DISTRICT OF COLUMBIA.

Banquet to Dr. Fletcher.—Dr. Robert Fletcher, associate librarian of the Army Medical Library, was entertained at a banquet by the local profession January 11, and presented with a handsome loving-cup as a testimony of his valuable services in this library during the past 30 years. Dr. William W. Keen, Philadelphia, made the presentation speech.

Health of the District.—The report of the health officer for the week ended January 6 shows the total number of deaths to have been 135—white 71, colored 64; births, 118—white 73, colored 45. The following cases of contagious diseases were under treatment at the close of the week: Diphtheria, 30; scarlet fever, 36; typhoid fever, 62, and smallpox, 21.

Therapeutic Society Meeting.—At the annual meeting of the Therapeutic Society of the District of Columbia, January 13, Dr. D. Olin Leech read his annual address as retiring president. The election of officers resulted as follows: President, Dr. Noble P. Barnes; vice-presidents, Drs. Harry A. Robbins and Edgar W. Watkins; recording and corresponding secretary, Dr. Arthur J. Hall; treasurer, Dr. John S. McLain, and censors, Drs. Frank Leech, Charles M. Beall and John W. Chappell.

ILLINOIS.

Hospital Notes.—The addition to the Marietta Phelps Hospital, Macomb, is almost completed. Dr. Samuel C. Stremmel is surgeon-in-chief.——Minerva Hospital, erected by Dr. John A. Colbourne at Pontiac, has been opened.

State Board of Charities.—The following have been appointed members of the State Board of Charities: Dr. Frank Billings, Chicago, president; Rabbi Emil G. Hirsch, Chicago; Miss Julia Lathrop, Chicago, and Dr. John T. McAnally, Carbondale.

Epidemic Diseases.—Stonington is under quarantine on account of five cases of diphtheria and the public school has been closed.——Smallpox cases have been reported to the State Board of Health from Bureau, Greene, Jersey, Kane, La Salle, Logan, McHenry, McLean, Macon and Sangamon counties.

Coroners' Inquests.—During the year ended December 1 the coroner of Cook County investigated 3,482 cases, including 25 cases in which the cause of death was given in the certificate. The nature of the fatalities follows: Natural causes, 1,185; suicides, 453; railway accidents, 355; falls, 221; homicides, 187; burns and scalds, 163; street-car accidents, 137, and other causes, 781.

Civil Service Examinations.—The State Civil Service Commission will hold an examination this month for attendants in the seven hospitals for the insane. This examination will be open to women between the ages of 18 and 45 years, and to men between 22 and 40 years. The subjects on which applicants will be examined and the weights or basis of marking will be: Common school requirements, 3; physicial examination, 4, and oral examination as to qualifications, 3. The examining board consists of Dr. Harry G. Hardt, assistant physician at the Illinois Northern Hospital for the Insane, Elgin; Dr. Herbert A. Potts, assistant physician, Illinois Central Hospital for the Insane, Jacksonville, and Miss Nellie Fitzgerald, head nurse, Illinois Eastern Hospital for the Insane, Kankakee.

Personal.—Dr. and Mrs. Benjamin E. Jones, Rock Island, have gone to California for the winter.——Dr. Robert C. J. Meyer, has been appointed commissioner of health of Moline.——Dr. Franklin E. Wallace has been appointed health officer of Monmouth during the absence of Dr. William H. Wells.——Dr. Harry G. Hardt has assumed his duties as assistant physician at the Illinois Northern Hospital for the Insane, Elgin.——Dr. Clifford U. Collins, Peoria, was operated on for appendicitis December 23.——Dr. James Henry, La Harpe, has retired from practice.——Dr. Ernest S. Reedy, Bloomington, has located in Blaine, Wash.——Dr. J. Whitefield Smith has been elected president; Dr. John L. Yolton, vice-president; Dr. Horace W. Ilder, secretary-treasurer, and Dr. Edson Hart, staff representative, of the staff of Brokaw Hospital, Bloomington.——Dr. Andrew J. McIntosh, Allendale, is dangerously ill with cerebral hemorrhage.——Dr. George A. Sihler, Litchfield, was operated on for appendicitis, December 18.

Chicago.

Smallpox Reappears.—After an interval of several months, a case of smallpox was discovered on the West Side, January 11.

Memorial Bowlder Placed.—A mammoth bowlder has been placed in Grant Park, by the Chicago Medical Society, in memory of Dr. Samuel Guthrie, the discoverer of the anesthetic properties of chloroform.

Personal.—Dr. Otto W. Lewke, coroner's physician, is seriously ill with septicemia from a postmortem wound.——Dr. Carl Beck has been chosen honorary president of the Society of Former German University Students, at its annual meeting held in New York City, December 21.

Not Illegal to Sell Eucain.—In the case of Louis Re, arrested on the charge of selling eucain, the judge held that eucain is not mentioned in the state poison law, and that the city ordinance forbidding its sale is invalid because the state alone has power to make such prohibition. The defendant was accordingly acquitted.

Deaths of the Week.—The deaths for the week ended January 13 numbered 582, or 20 more than for the previous week, and 40 more than for the corresponding week of 1905. The respective annual death rates per 1,000 were 14.80, 14.31 and 14.19. Of the principal death causes, pneumonia heads the list with 114, followed by consumption with 66; violence, including suicide, 52; Bright's disease, 44, and heart diseases, 40.

Chicago's Health.—The summary of the Health Department for 1905 shows that the death rate for the year was 13.67 per 1,000. Compared with the death rate of other cities of more than half a million inhabitants, the report states that the death rate of Chicago is 9.4 per cent. lower than that of St. Louis; 20.7 per cent. lower than that of Philadelphia; 21 per cent. lower than that of Boston; 25 per cent. lower than that of New York, and 26.9 per cent. lower than that of Baltimore. The death rate of Chicago is also shown to have progressively decreased by decades since 1845, as follows: 40.52, 23.86, 24.11, 20.41, 20.06 and 14.98. During the year 546 cases of smallpox were treated at the Isolation Hospital, with 61 deaths. The typhoid fever death rate was the lowest on record and more than 90 per cent. below that of 1891. The mortality from diphtheria decreased from 13.7 per 10,000 in the decade ending 1894, and 4.9 in the decade ending 1904, to 2.1 per 10,000 in 1905, a reduction of 84.7 per cent. from the rate of the decade prior to the introduction of antitoxin. Pneumonia caused 552 fewer deaths in 1905 than in 1904, a decrease of 15.9 per cent. as compared with the previous year. Only three chronic diseases showed increase: Bright's disease increased 5.9 per cent.; cancer, 2.93 per cent., and heart diseases showed an increase of only 50 more deaths than in 1904. Pneumonia led in the death causes with 3,582, followed by consumption, with 3,203; acute intestinal diseases, with 2,570; heart diseases, with 2,110; Bright's disease, with 2,017; violence, with 1,638; cancer, with 1,191, and nervous diseases, with 1,093. Diphtheria caused 426 deaths; measles, 231; whooping cough, 359; scarlet fever, 79; smallpox, 61; typhoid fever, 329, and yellow fever, 1 death.

INDIANA.

Goes Free.—Dr. Sumner A. Edmands, Goshen, charged with having performed a criminal operation on Mrs. Anna Darnell, was found not guilty, January 10.

Fined for Illegal Practice.—Dr. Stephen A. Spees, Terre Haute, charged with practicing medicine without a license, was found guilty, January 5, and fined $25 and costs.

New Hospital.—Hon. D. D. Dykeman has agreed to donate to Logansport a hospital for the use of its citizens, in memory of his wife, and to be known as the Mary Dykeman Hospital. He will build a hospital to cost $75,000 and endow it with $100,000.

Medical Course at State University.—The trustees of Indiana University, Bloomington, have decided to make its premedical course, a full medical course for four years, and to confer degrees. The reorganized school of medicine will begin its work next fall.

Hospital Dedicated.—The reconstructed and enlarged St. Elizabeth's Hospital, Lafayette, was dedicated with imposing ceremonies by Bishop Alerding, December 31. The addition was erected at a cost of more than $50,000, and doubles the capacity of the institution.

Fountain County Society Meeting.—The January meeting of this society was held at Covington. The following officers were elected: President, Dr. Francis A. Shoaf, Veedersburg; vice-president, Dr. Albert C. Holley, Attica; secretary, Dr. George Rowland, Covington, and censors, Drs. Marshall Petet, Veedersburg, Charles J. Finney, Attica, and Walter H. Ross, Veedersburg.

Personal.—Dr. John H. Ross, Kokomo, has gone to Winter Haven, Fla.——Dr. Hugh A. Cowing, Muncie, has been reappointed secretary of the Delaware County Board of Health.——Dr. William H. Daniel, Corydon, has been appointed secretary of the Harrison County Board of Health.——Dr. Edwin O. Harrold, Marion, has been appointed local surgeon for the Big Four and Pennsylvania systems.——Dr. Stanley W. Edwins, Elwood, is critically ill.——Dr. Morton J. Compton, Evansville, has been appointed secretary of the Vanderburg County Board of Health, vice Dr. Willis S. Pritchett.——Dr. James D. Hillis, Lafayette, has been appointed secretary of Tippecanoe County Board of Health.——Dr. Daniel B. Cain has been appointed police surgeon of Evansville.——Dr. William M. Wright, Indianapolis, in a street-car accident, January 3, suffered severe lacerations of the face.——Dr. Charles E. Barnett, Evansville, returned from Vienna, January 15.——Dr. L. L. Williams has been appointed surgeon at Brazil for the C. & E. I. R. R.——Dr. Hezekiah C. Doster, Poneto, suffered a severe cerebral hemorrhage, January 3.

MARYLAND.

First-Aid Instruction.—The Baltimore & Ohio school for instruction in first aid to the injured was opened at Cumberland January 8, under the charge of Drs. John A. Doerner and L. S. Stitely of the relief department, assisted by local surgeons. Trainmen, foremen and minor officials are required to attend.

To Regulate Sale of Narcotics.—The attorney-general has drafted a bill to regulate the sale of narcotic drugs. It applies to cocain, eucain and morphin, but not to opium. The burden of proof is to be on the accused to show that he did not know or could not have ascertained that the article furnished contained prohibited drugs.

Appointments.—Dr. Armfield F. Van Bibber, Belair, has been appointed physician to the Harford County Almshouse, and the following have been appointed vaccine physicians for that county: First district, Dr. Charles E. Roth, Edgewood; second district, Dr. Jay H. Stier, Perryman; third district, Dr. E. Hall Richardson, Belair; fifth district, Dr. Walter B. Kirk, Darlington, and sixth district, Dr. W. L. Hopkins. Dr. Frank P. Smithson, Forest Hill, has been appointed subregistrar of the third district.

State Hospital Reports.—The tenth annual report of the Springfield State Hospital for the Insane for the year ended Oct. 1, 1905, shows that 166 patients were admitted and 129 were discharged, paroled and died, leaving 644 remaining in the institution. The annual death rate was 7.57 per 1,000. Two more hospital buildings, a new dining-room, kitchen and isolation building are needed.——The one hundred and eighth annual report of Maryland Hospital for the Insane, Springgrove, for the year ended Oct. 31, 1905, shows that only 61 patients were admitted, the smallest number in the history of the institution and due to its crowded condition. There were 620 patients under treatment during the year, of whom 30 were discharged, 18 as cured, 7 improved and 5 unimproved, and 31 died. The number now in the hospital is 559. The net cost of maintaining the hospital was $113,040, and the cost per capita $201.50.

Baltimore.

Beriberi.—There is a case of beriberi in a Norwegian sailor at the City Hospital. The man came on a ship from Brazil. A similar case occurred at the City Hospital last year.

Portrait of Dr. Hurd.—The past and present house officials of the Johns Hopkins Hospital are to have a lifesize portrait painted of Dr. Henry M. Hurd, superintendent. It will be hung in the administration building.

Personal.—Dr. J. Hall Pleasants is ill with typhoid fever.——At the Johns Hopkins Hospital Dr. C. P. Emerson has been appointed resident physician, vice Dr. Rufus I. Cole, resigned. Dr. Cole has been appointed associate in medicine and Dr. Josiah M. Slemmons, associate in obstetrics. Dr. Roger Morris has been appointed assistant resident physician and Dr. J. A. Caldwell has resigned as assistant gynecologist.

MASSACHUSETTS.

Want Bowditch Back.—An earnest effort is being made to induce the governor and council to revise the action of the trustees of the Rutland Sanitarium in displacing Dr. Vincent Y. Bowditch as visiting physician.

Board of Insanity Report.—The Massachusetts State Board of Insanity states that it has under its care 10,153 insane persons, 4,832 men and 5,321 women, or one to every 296 of the general population. It asks that accommodations be pro-

vided for 200 more. The extreme overcrowding reported last year has been relieved and will continue so if the state will furnish this additional room each year.

Brigham Hospital Announcement.—The directors of the Brigham Hospital for Incurables announces that the accumulated income now amounts to $277,884.47 and that it is, therefore, intended to proceed with the plans and erection of a hospital large enough to care for 200 patients. This will not be primarily for tuberculous patients, but chronic diseases like cancer, paralysis, etc., will probably constitute the larger number. The location is to be on the top of Parker Hill, Roxbury.

Vital Statistics.—The vital statistics for Massachusetts for 1904 as reported to the legislature, show that with a population of 2,805,346 there were 75,014 births, 25,993 marriages and 48,482 deaths. The birth rate was the lowest since 1879, while the number of marriages was greater than any year since 1850, except 1903. The death rate was 15.76 per 1,000, the lowest since 1851. Deaths among infants under 1 year old were 9,992, 740 less than the average of the past 10 years. There was a marked decrease in the deaths from infectious diseases, specially pertussis, scarlet fever, measles and diphtheria.

Personal.—Dr. Walter Remsen Brinckerhoff, assistant pathologist at Harvard Medical School, who has already made a name for himself as assistant to Dr. William Councilman in the search for the germ of variola, having carried out supplementary work in the government laboratories at Manila and subsequently studied the plague in the Transcaucasus, has been appointed pathologist in charge of the new hospital and laboratory for the study of leprosy on the island of Molokai, Hawaii.——Dr. Fred B. Lund, Boston, has been appointed one of the board of trustees of the Medfield Insane Hospital.

NEW YORK.

Violations of Pure-Food Law.—State Commissioner Weiting during the last year referred to Attorney-General Mayer 507 cases of violations of the agricultural law, including the following: Impure milk, 230; impure butter, 29; impure food, 126. There are 368 other cases under investigation.

Infected Milk.—As the result of information from Health Officer I. Adelbert Hix of Binghamton that milk had been shipped to New York City from a dairy near Binghamton which was infected with scarlet fever, the State Department of Health will direct the Board of Health of New York City to prevent the receipt of this milk. Dr. Hix threatens to prefer charges against the health officer in the town where the dairy is located, alleging that he failed to enforce quarantine on the infected premises.

New York City.

Yerkes Hospital Will be Built.—The hospital in the Bronx provided for by the will of the late Charles T. Yerkes will be begun as soon as the estate is settled, instead of waiting until the death of Mrs. Yerkes, as provided by the will.

Vital Statistics of Queens.—There were in this borough for the year 1905, 4,355 births, 3,191 deaths and 1,092 marriages. Of the various causes of death consumption led with 310. There were 611 coroner's cases, 413 accidentals or homicides, 56 were suicides, and 10 from sunstroke.

Health Board Wants More Money.—At the first meeting of the new board of estimate, which was held January 12, the Department of Health asked for $135,000. One of the items called for $15,000 for drugs and antitoxin. The matter was referred to Mr. Metz, who is a manufacturer of antitoxin.

Contagious Diseases.—There was reported to the sanitary bureau for the week ended December 30, 798 cases of measles, with 12 deaths; 388 cases of diphtheria, with 38 deaths; 365 cases of tuberculosis, with 163 deaths; 183 cases of scarlet fever, with 6 deaths; 36 cases of cerebrospinal meningitis, with 16 deaths; 45 cases of typhoid fever, with 7 deaths, and 117 cases of varicella.

Large Hospital Collections.—At the annual meeting of the Hospital Saturday and Sunday Association, January 8, it was reported that the Woman's Auxiliary would present a fund larger than that of last year, which was $12,000. The collection in general promises to be the largest in the history of the association. It is thought that it will exceed $100,000, as against $92,000 of last year.

No Expert Fees for City Physicians.—The assistant district attorney, when recently urged to have a prisoner examined as to sanity, said that whenever such a request was made the doctors posed as experts and put in a bill. Judge Cowing, who had ordered the examination, said that the city physicians were on salary and that such services would have to be rendered without pay in the future.

Pasteurize All Milk.—The necessity for pasteurizing the entire milk supply of large cities is being kept constantly before the public by the daily papers. It is urged that this work should become a function of the municipality. Nathan Strauss, who has done so much of this work for New York, also urges the importance of the work, and says that while the entire work would transcend the bounds of private effort, in the budget of the government it would be but a small item, which could be met easily by the taxpaying population.

Beth Israel Hospital.—At the annual meeting of the association governing this hospital four new directors were elected. The report showed that during 1905 the hospital received $84,133.31 and spent $84,375. Since October 1 the hospital has received $20,000 in subscriptions, Nathan Hermann subscribing $5,000 on condition that $10,000 more be obtained. The directors raised $15,000, the largest gift coming from the estate of Solomon Bachrach, $5,000. During the year the hospital treated in all 45,573 persons.

Object to Sanitarium.—A committee of business men of Staten Island called on Charities Commissioner Hebberd at Bellevue January 8 to protest against the proposed tuberculosis sanitarium at Port Richmond. The committee held that the climate of Staten Island was unsuited for this purpose and that the coming of 800 consumptives would threaten the health of the community, and depreciate the value of property in the vicinity. The complaint will be considered and a decision made known within a reasonable length of time.

Health Department Methods Criticized.—A case came to trial recently in which the defendant had been indicted under sanitary laws for keeping his premises in a filthy condition. The Board of Health had no record that the defendant had been notified and consequently Recorder Goff directed that the jury acquit him, and scored the Health Department for allowing its subordinates to initiate proceedings and to issue orders themselves without the slightest regard to the forms of law or without the knowledge of the heads of the department. Investigation showed that the Health Department had kept no records of such proceedings during the past eight years. It was recommended that some system be introduced that would be in conformity with the plain requirements of the law.

Cartwright Lectures.—These lectures, given under the auspices of the Alumni Association of the College of Physicians and Surgeons, will be given this year in the New York Academy of Medicine, January 25 and 29, and February 2. Baron K. Takaki, surgeon general (reserve) of the Japanese Navy, will deliver them, and he has selected as a title "Military and Naval Sanitation Experiences of the Late Japanese-Russian War." He studied medicine in England and was graduated from St. Thomas Hospital with honors. During his time of service in Japan he has busied himself in thoroughly reorganizing the sanitary and medical systems of the new Japanese navy. Up to the recent Japanese-Chinese war he was surgeon general, Japanese navy, and to his energy and genius are to be attributed, in large part, the wonderful results attained by the Japanese navy.

NORTH CAROLINA.

New Sanatorium.—The new sanatorium "Cragmont," for tuberculosis at Black Mountain, 11 miles above Asheville, is nearing completion and will be open about February 1.

Banquets.—The Haywood County Medical Society, with guests from Jackson and Swain counties, were the guests at a complimentary dinner in honor of the society at Waynesville, by Dr. J. Howell Way, January 8.——The Iredell-Alexander County Medical Society held its annual dinner early in January, at Statesville, with a goodly attendance.——The members of the Wilson County Medical Society were the guests of Drs. Charles Moore, Albert Anderson and E. Thomas Dickenson at a complimentary banquet January 4 at Wilson. A number of visiting physicians from adjoining counties were present.

Stand for Five-Dollar Fee.—The Caldwell County Medical Society January 1 adopted the resolutions recommended for adoption by the county societies at the 1905 session of the State Medical Society at Greensboro, fixing the insurance examination fee at $5 for all regular old-line insurance companies. A large number of other counties which had previously not taken action on this matter, have since done so, and many physicians think the indications are that, unless insurance companies wish to pay $5 for every insurance examina-

tion regardless of the amount of the policy asked for, they will not be able to secure examiners in the ranks of the regular medical profession.

PENNSYLVANIA.

Philadelphia.

Beriberi Here.—The British steamship *Ardova*, from Chile, was quarantined at Marcus Hook, January 9, on account of a case of beriberi and three other suspected cases, which were placed in the detention hospital at the quarantine station. The victims were Chinese sailors.

Blockley Advisory Board.—Dr. W. M. Late Coplin, director of health and charities, announced, January 11, the appointment of an advisory staff for Blockley. The staff includes Drs. Alfred Stengel, Charles H. Frazier, Lawrence F. Flick, William L. Rodman, S. Solis-Cohen and Lewis W. Steinbach.

Fighting Nostrums.—A vigorous step in the crusade against nostrums was inaugurated at the meeting of the County Medical Society, January 10. Resolutions were adopted by the society against physicians who use medicines of secret composition, against all journals which print certain nostrum advertisements, and against the United States patent office and postoffice department. A full report is given on page 218.

Personal.—Dr. and Mrs. Henry M. Fisher sailed for Europe January 8.——Dr. Edward E. Montgomery was elected president, and Dr. Charles W. LeFever, secretary, of the Ohio Society, at Philadelphia, January 11.——Dr. Wilford W. Hawke, chief resident physician of the insane department of the Philadelphia Hospital, has resigned.——Dr. W. Reynolds Wilson gave a dinner in honor of Dr. Robert T. Morris, New York City, January 18. In the evening Dr. Morris addressed the gynecologic section of the College of Physicians.

Health Report.—The total number of deaths reported for the week aggregated 582, as compared with 536 reported last week, and 500 reported in the corresponding week of last year. The principal causes of death were: Typhoid fever, 23; measles, 17; whooping-cough, 4; diphtheria, 16; meningitis, 4; cancer, 28; apoplexy, 24; heart disease, 64; acute respiratory diseases, 101; enteritis, 16; appendicitis, 3; Bright's disease, 41; premature birth, 17; suicide, 1; accidents, 15, and marasmus, 4. There were 416 cases of contagious disease reported, with 40 deaths, as compared with 341 cases and 36 deaths reported last week. There were 262 new cases of typhoid fever with 23 deaths, the largest number of typhoid fever cases reported in any one week since the outbreak last spring. The disease prevails generally throughout the city, and only three wards are wholly free from it. Measles prevails throughout the city to an alarming extent. There were 431 new cases reported as compared with 353 reported last week, and 17 deaths resulted from this so-called simple affection.

The Death Rate in 1905.—According to the report prepared by Dr. Alexander C. Abbott, chief of the bureau of health, the health of the city during 1905 was exceptionally good, there being 1,200 deaths less than during the previous year. The proportion of deaths to the population was 17.25 per 1,000 for last year and 18.44 for 1904. The total number of deaths from all causes was 24,807. The principal causes of death, compared with the previous year, were as follows:

	1905.	1904.
Pneumonia	2,591	3,361
Tuberculosis, lungs	2,829	3,107
Other forms of tuberculosis	402	393
Typhoid fever	689	744
Diphtheria	361	542
Scarlet fever	60	201

The authorities believe that the open winter was responsible for the low mortality from lung trouble during the latter part of 1905, and that the decrease in the number of cases of all transmissible diseases was due to the better methods of the bureau of health, covering the fumigation and disinfecting of all premises where cases of such disease occurred.

VIRGINIA.

Personal.—Dr. S. R. Jordan of Virgiliana, when returning from a call, was thrown from his buggy and painfully injured. He was found lying in the roadside two miles from home, with his elbow dislocated and head badly lacerated.

GENERAL.

Pathologist for Leper Settlement in Hawaii.—Dr. W. R. Brinckerhoff of the Harvard Medical School, has been appointed pathologist in charge of the new hospital and laboratory at the government experiment station in the leper settlement on the Island of Molokai.

New Journals.—The *Bulletin of the Pharmaceutical Association* is a new publication, and the first number makes a very creditable appearance. We wish it success, and trust that this organization will take its stand on present-day subjects, realizing its mission. If this body does not stand for the best in pharmacy, then there is none that does.——The *Alkaloidal Clinic* has changed its name to the *American Journal of Clinical Medicine*, and is somewhat enlarged and has additional members on its editorial staff. As we announced at the time of the fire which destroyed its plant, it proposes to cover a larger field than heretofore. We wish it success.——The *New England Alkaloidist* is a new journal, hailing from Milford, Mass.

Government Exposes Nostrums.—The annual report of the chief of the bureau of chemistry of the Department of Agriculture includes an account of the work of the bureau in aiding the Postoffice Department in investigating various nostrums. Many have been found to be fraudulent and many injurious by reason of the presence of cocain, morphia, chloral, or a large percentage of alcohol. THE JOURNAL has published the details of some of these investigations, and they well show the character of the work. Inspection of exported and imported foods has been continued, as well as physiologic experiments with food preservatives. Seven thousand three hundred and thirty-eight samples were analyzed, including 3,750 samples of imported foods, 2,579 samples for the hygienic table, and 1,009 miscellaneous samples.

Prevention of Importation of Smallpox from Canada.—Acting Assistant Surgeon Young reports the precautions taken on the Canadian border to prevent the importation of smallpox during the present epidemic. Trains were inspected, susceptible individuals vaccinated, cars disinfected and all other necessary steps taken to prevent the entrance of the disease. Admission was refused to some persons because of suspected contact with smallpox at Tracy or Fredericton Junction, on line of Canadian Pacific Railroad between St. John and Vanceboro, or because of positive knowledge that proper disinfection had not been done in the houses from which the individuals came and in which smallpox had occurred. The present epidemic is especially dangerous because of its mild character in the early stages, many persons concealing the disease so that in a large percentage of cases no disinfection had been done, and in many cases the health officials have no knowledge of its existence. Dr. Young states that three times within two weeks persons with face and hands partially covered with scabs have appeared at Fredericton Junction from points in surrounding country, and of these only one had broken quarantine.

CANADA.

Statistics of St. John, N. B., for 1905.—During the year 1905 968 births were recorded in the city of St. John, N. B., and 472 marriages. These returns show an increase of 8 births and 42 marriages over 1904.

Montreal Weekly Vital Statistics.—There were 68 deaths in Montreal during the first week of 1906, the lowest mortality for many years. The average weekly death rate in Montreal is 125. There was only one death from a contagious disease.

Vaccination in Toronto.—One of the members of the Toronto board of education is calling for opinions from citizens looking toward the abolition of compulsory vaccination among the school children of that city. The medical health officer advises that instead of abolishing vaccination, it should be extended to include the separate schools in the city.

Margaret Scott Nursing Mission, Winnipeg.—During December, 1905, the nurses of the Margaret Scott Nursing Mission of Winnipeg made 1,003 visits, which show that the work of the mission has nearly doubled since 1904, when only 528 visits were made. Two hundred and ninety-one visits were paid to typhoid fever patients and 186 to obstetrical cases.

Annual Meeting of the Canadian Association for the Prevention of Tuberculosis.—The executive council of the Association for the Prevention of Tuberculosis in Canada met in Ottawa, January 8. It was resolved to hold the next annual meeting in Ottawa in the last week in March, at a date acceptable to the governor-general. Dr. A. J. Richer of Montreal is to deliver an illustrated lecture on consumption at the annual meeting. The question of how the dominion government can best assist in stamping out this plague in Canada, will be submitted to the minister of agriculture at an early date by the president of the association, Senator Edwards.

FOREIGN.

Chair for Social Medicine.—The medical faculty of the University of Bonn, Germany, has created a professorship of social medicine. The first incumbent is to be Professor Rump, until recently director of the General Hospital at Hamburg, but now professor of internal medicine at Bonn.

Death from X-Ray Injury.—The death is reported from Paris of Mr. A. Radiguet, one of the best known designers, makers and demonstrators of instruments for application of the Roentgen rays to medicine. He was chairman of the committee in charge of the exhibition of radiotherapy at the international expositions at Paris, St. Louis and Liège last year. In his constant work with the *x*-rays, an *x*-ray burn of the right arm resulted in gangrene, which proved fatal after months of suffering.

Medical Inspection of Schools in Berlin.—The medical inspectors of the schools at Berlin have recently published a detailed report of their work during 1904-5. Each inspector has 127 classes, that is, 8 or 9 schools, to supervise, more than four times as many as in any other German city. The report shows the inestimable benefit of medical inspection from many standpoints. It was found that in one school 31.9 per cent. of the girls and 34.4 per cent. of the boys were habitually drinking beer every day, while 1.8 per cent. of the girls and 4 per cent. of the boys took alcoholic drinks. The development of nervous affections during school life is also confirmed by the report.

Quarantine Facilities in Northern Brazil.—The health officer of the republic, who has just returned from an inspection of quarantine methods and facilities and of the way in which health regulations are observed in northern ports of Brazil, expresses himself in his report as unsatisfied with the result of his inspection. He states that he intends to petition the government to provide the necessary money for the purchase of such indispensable appliances as will secure disinfection establishments, isolation hospitals and disinfecting launches for the fumigation of ships. He reports that the general health of the northern ports is good, but that there is a good deal of smallpox and yellow fever in Manaos, and that the latter malady is prevalent in Belem, the port and capital of Para.

What Shall We Call Schaudinn's Pale Pseudo-Spirochete?—Schaudinn has announced that the *Spirochæte pallida* discovered by him has certain features which class it apart from spirochetes and also from spirilla. He is convinced that it is a new species, and, as mentioned in these columns on page 1992, he suggested the name *Spironema* for it. He has since learned that this name has been appropriated for a mollusc and for a flagellate, and he now offers the term *Treponema* to designate his pseudo-spirochete. A suggestion has recently been made in this country to call it the *Microspironema*, but Schaudinn has the priority, and his term is shorter. It now seems that some of the other so-called spirochetes in reality have no claim to this title. The *Semaine Médicale* remarks in regard to Schaudinn's, that even if we accept his name, *Treponema pallidum*, it will be many a day before clinicians refer to syphilis as "treponemiasis." There has been some confusion in regard to the spelling of spirochæte. Spirochæta is the historical term, as first applied by Ehrenberg seventy years ago, but spirochæte conforms better to the Greek derivation, and is the one now used by the Germans.

Fancy Dress Ball of the Paris Internes.—One of the features of medical life in Paris among the younger set is the annual *bal de l'internat*, given in the heart of the Latin quarter. The procession of floats representing the various hospitals is reviewed by a committee of prominent physicians and surgeons, artists and theatrical managers. The first prize at the recent ball was awarded to the St. Antoine Hospital for its representation of the "History of Cholera." First came India, personified by a beautiful maiden, followed by the gilded form of the god Vishnu, brandishing the symbolic bouillon culture medium. Then came with great flourish of trumpets and red and green fires, a ferocious giant strutting on an inaccessible crag, this car being labeled: "The True Cholera—the Cholera Descending the Russian Rivers." Lariboisière Hospital, with its representation of a glimpse into Hades, and the Charité Hospital, with its "Vaselinade," shared the second prize. Beaujon's Hospital float was a tableau representing Abel Faivre's famous painting, "The Auscultation," a white-haired physician auscultting the chest of a fair patient. The float of the new Aubervilliers Hospital showed a cart drawn by real oxen and other features of a native African village, all in the clutch of sleeping sickness. The *Journal de Méd. de Paris* for December 25 gives a description of the ball.

Pharmacology

Endorsement of Propaganda for Common Sense in Therapeutics.

Dr. Albert M. Eaton, Philadelphia, under date of December 26, writes:

> "I thank those in authority for the protection given to us medical men throughout the United States by the work of the Council on Pharmacy and Chemistry. THE JOURNAL is doing good work for all of us in protecting us from schemes and fakes in and out of the profession."

Dr. J. A. Pettit, Portland, Ore., writes:

> "I wish to congratulate you on the campaign you are conducting against nostrums. The profession has been 'used,' and an undue advantage taken of the gullibility of its less sagacious members. The result of your efforts along this line will be far reaching, not only in checking the chaos into which modern therapeutics has been gradually drifting, but also in bettering present existing conditions."

Dr. J. H. Ball, Crystal Falls, Texas, writes that he is greatly pleased with the work being done by THE JOURNAL in endeavoring to bring the profession to ethical terms.

Dr. C. E. Duncan, Flora, Ill., writes:

> "I am with you heart and soul in your fight on nostrums. Also let me express my gratitude to you for opening my eyes on this important question. I am 'young yet' and have not erred very much in the use of these 'ethical' products. However, but for the 'news' you have printed I know I would have been drawn into the net of 'eloquent' drug salesman."

Dr. J. E. E. Olander, St. Paul, writes:

> "Let the good work against poor drugs go on. We appreciate it. The special article is just what we need."

COUNTY SOCIETIES TAKE ACTION.

The Westmoreland County (Pa.) Medical Society, at its December meeting, passed resolutions commending the action of the American Medical Association in establishing a Council on Pharmacy and Chemistry to investigate non-official drugs and medical preparations, and expressing its hearty approval of the action THE JOURNAL has taken in regard to nostrums. The society also commended the work of *Collier's Weekly* and the *Ladies' Home Journal* in exposing the evils of "patent medicines."

Similar resolutions were passed by the Auglaize County (Ohio) Medical Society at its December meeting, by the Nacogdoches County (Texas) Medical Society and by the Northwest Branch of the Chicago Medical Society. The last-mentioned society in addition asked each member to refrain from prescribing proprietary medicines in any case in which it is possible to use the officinal preparations.

At a meeting held Jan. 10, 1906, the Philadelphia County Medical Society adopted the following resolution:

Resolved, That this society considers it highly unethical and improper for physicians to prescribe or to sanction the use of medicinal agents whose formula and composition are kept secret or concealed; it deprecates the manufacture and sale by pharmacists of nostrums of all kinds; it advises the public against the use of all so-called "patent medicines" and nostrums; it expresses its cordial appreciation and hearty endorsement of the action of the American Medical Association in creating a Council on Pharmacy and Chemistry, and of the officers of the Association, particularly the editor of THE JOURNAL of the Association, in their efforts to exclude advertisements of nostrums from the columns of THE JOURNAL and for their campaign against the nostrum evil; it acknowledges its obligation to and bespeaks the hearty support of those brave lay journals that have done so much to arouse popular and professional sentiment against the use of nostrums by exposing the character of the promoters of this nefarious traffic and the composition of their products; it urges on all editors and publishers, lay and medical, the exclusion from their columns of advertisements of nostrums and furtherance of the crusade against their use; it urges all physicians to refrain from subscribing to and publishing their scientific papers in medical journals that accept advertisements of nostrums; it recommends the appointment by the president of a committee of three to communicate in person and by correspondence with editors and publishers for the purpose of securing their co-operation in the present crusade; it calls the attention of the medical schools to the necessity of training their graduates more fully in the materia medica and in the art of pharmacy, and of pointing out the dangers from the use of nostrums; it heartily endorses the bill for the prevention of

the adulteration and misbranding of foods, drugs, medicines and liquors, now pending or shortly to be introduced in the United States Senate; it urges on the Legislature of the State of Pennsylvania the enactment of laws supplementing the contemplated action of the Federal Government; it condemns the granting by the United States Patent Office of copyright trade-mark registration to the class of nostrums; and by the United States Postoffice of the use of the mails for the exploitation of these nostrums; it requests members of the medical profession to make report of all cases of injury, death or drug habit due to the use of nostrums; it desires to give the widest publicity in both the medical and the lay press to the foregoing resolutions embodying its views on the nostrum evil as adopted, and asks that a committee of one be appointed to promulgate these resolutions.

Not Now Members of the Proprietary Association.

Messrs. Schieffelin & Co. ask us to announce that they have withdrawn from the Proprietary Association of America. They claim that their membership in the Association was merely nominal, and came about through their wholesale drug business, entirely apart from their pharmaceutical department.

Messrs. E. Fougera & Co. also announce that they have withdrawn from the Proprietary Association.

Messrs. Smith, Kline & French Co., Philadelphia, write that they were formerly members of the Proprietary Association, but that they have resigned.

PREYING ON THE INCURABLES.

Samuel Hopkins Adams' Fifth Article in the Series on the Great American Fraud.

Under the title of "Preying on the Incurables" appears the fifth installment of Samuel Hopkins Adams' article on the Great American Fraud in *Collier's Weekly* for January 13. We copy below part of the article, but the illustrations which accompany it are not the least important part of the presentation of the subject:

Incurable disease is one of the strongholds of the patent medicine business. The ideal patron, viewed in the light of profitable business, is the victim of some slow and wasting ailment in which recurrent hope inspires to repeated experiments with any "cure" that offers. In the columns of almost every newspaper you may find promises to cure consumption. Consumption is a disease absolutely incurable by any medicine, although an increasing percentage of consumptives are saved by open air, diet and methodical living. This is thoroughly and definitely understood by all medical and scientific men. Nevertheless there are in the patent medicine world a set of harpies who, for their own business interests, deliberately foster in the mind of the unfortunate sufferer from tuberculosis the belief that he can be saved by the use of some absolutely fraudulent nostrum. Many of these consumption cures contain drugs which hasten the progress of the disease, such as chloroform, opium, alcohol and hasheesh. Others are comparatively harmless in themselves, but by their fervent promises of rescue they delude the sufferer into misplacing his reliance and forfeiting his only chance by neglecting those rigidly careful habits of life which alone can conquer the "white plague." One and all, the men who advertise medicines to cure consumption deliberately traffic in human life.

Certain members of the Proprietary Association of America (the patent medicine "combine") with whom I have talked have urged on me the claim that there are firms in the nostrum business that are above criticism, and have mentioned H. E. Bucklen & Co. of Chicago, who manufacture a certain salve. The Bucklen salve did not particularly interest me. But when I came to take up the subject of consumption cures I ran unexpectedly on an interesting trail. In the country and small city newspapers there is now being advertised lavishly "Dr. King's New Discovery for Consumption." It is proclaimed to be the "only sure cure for consumption." Further announcement is made that "it strikes terror to the doctors." As it is a morphin and chloroform mixture, "Dr. King's New Discovery for Consumption" is well calculated to strike terror to the doctors or to any other class or profession, except, perhaps, the undertakers. It is a pretty diabolical concoction to give to any one, and particularly to a consumptive. The chloroform temporarily allays the cough, thereby checking nature's effort to throw off the dead matter from the lungs. The opium drugs the patient into a deceived cheerfulness. The combination is admirably designed to shorten the life of any consumptive who takes it steadily. Of course, there is nothing on the label of the bottle to warn the purchaser. That would decrease the profits. The makers of this beneficent preparation are H. E. Bucklen & Co. of Chicago.

Chloroform and Prussic Acid.

Another "cure" which, for excellent reasons of its own, does not print its formula, is "Shiloh's Consumption Cure," made at Leroy, N. Y., by S. C. Wells & Co. Were it to publish abroad the fact that it contains, among other ingredients, chloroform and prussic acid, the public would probably exhibit some caution in taking it. Under our present lax system there is no warning on the bottle that the liquid contains one of the most deadly of poisons. The makers write me:

"After you have taken the medicine for awhile, if you are not firmly convinced that you are very much better, we want you to go to your druggist and get back all the money that you have paid for Shiloh."

But if I were a consumptive, after I had taken "Shiloh" for awhile I should be less interested in recovering my money than in getting back my wasted chance of life. Would S. C. Wells & Co. guarantee that?

Morphin is the important ingredient f Dr. Bull's Cough Syrup. Nevertheless, the United States Postoffice Department obligingly transmits me a dose of this poison through the mails from A. C. Meyer & Co. of Baltimore, the makers. The firm writes me, in response to my letter of inquiry:

"We do not claim that Dr. Bull's Cough Syrup will cure an established case of consumption. If you have gotten this impression you most likely have misunderstood what we claim. . . . We can, however, say that Dr. Bull's Cough Syrup has cured cases said to have been consumption in its earliest stages."

Quite conservative this. But A. C. Meyer & Co. evidently don't follow their own advertising very closely, for around my sample bottle (by courtesy of the Postoffice Department) is a booklet, and from that booklet I quote:

"*There is no case* of hoarseness, cough, asthma, bronchitis . . . *or consumption that can not be cured speedily* by the proper use of Dr. Bull's Cough Syrup."

If this is not a claim that Dr. Bull's Cough Syrup "will cure an established case of consumption," what is it? The inference from Meyer & Co.'s cautious letter is that they realize their responsibility for a cruel and dangerous fraud, and are beginning to feel an uneasiness about it, which may be shame or may be only fear. One logical effect of permitting medicines containing a dangerous quantity of poison to be sold without the poison label is shown in the coroner's verdict herewith printed. In the account of the Keck baby's death from the Dr. Bull opium mixture, which the Cincinnati papers published, there was no mention of the name of the cough syrup. Asked about this, the newspapers gave various explanations. Two of them disclosed that they had no information on the point. This is contrary to the statement of the physician in the case, and implies a reportorial laxity which is difficult to credit. One ascribed the omission to a settled policy and one to the fear of libel. When the coroner's verdict was given out, however, the name of the nostrum got into plain print. On the whole the Cincinnati papers showed themselves gratifyingly independent.

Another case of poisoning from this same remedy occurred in Morocco, Ind., the victim being a 2-year-old child. . . .

Absolutely False Claims.

A curious mixture of the cautious, semi-ethical method and the blatant claim-all patent medicine is offered in the Ozomulsion Company. Ozomulsion does not, like the "cures" mentioned above, contain active poisons. It is one of the numerous cod-liver-oil preparations, and its advertising, in the medical journals at first and now in the lay press, is that of a cure for consumption. I visited the offices of the Ozomulsion Company recently and found them duly furnished with a regular physician, who was employed, so he informed me, in a purely ethical capacity. There was also present during the interview the president of the Ozomulsion Company, Mr. A. Frank Richardson, former advertising agent, former deviser of the advertising of Swamp-Root, former proprietor of Kranitonic and present proprietor of Slocum's Consumption Cure, which is the "wicked partner" of ozomulsion. For convenience I will put the conversation in court report form, and, indeed, it partook somewhat of the nature of a cross-examination:

Q.—Dr. Smith, will Ozomulsion cure consumption?

A.—Ozomulsion builds up the tissues, imparts vigor, aids the natural resistance of the body, etc. (Goes into a long exploitation in the manner and style made familiar by patent-medicine pamphlets.)

Q.—But will it cure consumption?

A.—Well, without saying that it is a specific, etc. (Passes to an instructive, entertaining and valuable disquisition on the symptoms and nature of tuberculosis.)

Q.—Yes, but will Ozomulsion cure consumption?

A.—We don't claim that it will cure consumption.

Q.—Does not this advertisement state that Ozomulsion will cure consumption? (Showing advertisement.)

A.—It seems to.

Q.—Will Ozomulsion cure consumption?
A.—In the early stages of the disease—
Q. (*interrupting*)—Does the advertisement make any qualifications as to the stage of the disease?
A.—Not that I can find.
Q.—Have you ever seen that advertisement before?
A.—Not to my knowledge.
Q.—Who wrote it?
A. (*by President Richardson*)—I done that ad. myself.
Q.—Mr. Richardson, will Ozomulsion cure consumption?
A.—Sure; we got testimonials to prove it.
Q.—Have you ever investigated any of these testimonials?
A.—No.
Q. (*to Dr. Smith*)—Dr. Smith, in view of the direct statement of your advertising, do you believe that Ozomulsion will cure consumption?
A.—Well, I believe in a great many cases it will. . . .

Health for Five Dollars.

Dr. Slocum puts out a "Special Cure Offer" that will snatch you from the jaws of death, on the blanket plan, for $5, and guarantees the cure (or more medicine) for $10. His scheme is so noble and broad-minded that I can not refrain from detailing it. For $5 you get:

1 large bottle of Psychine.
1 large bottle of Ozomulsion.
1 large bottle of Coltsfoote Expectorant.
1 large tube of Ozojell.
3 boxes of Lazy Liver Pills.
3 Hot X-ray Porous Plasters.

"Which," says the certificate, "will in a majority of cases effect a permanent cure of the malady from which the invalid is now suffering." Whatever ails you—that's what Dr. T. A. Slocum cures. For $10 you get almost twice the amount, plus the guarantee. Surely, there is little left on earth, unless Dr. Slocum should issue a $15 offer, to include funeral expenses and a tombstone.

The Slocum Consumption Cure proper consists of a gay-hued substance known as "Psychine." Psychine is about 16 per cent. alcohol and has a dash of strychnin to give the patient his money's worth. Its alluring color is derived from cochineal. It is "an infallible and unfailing remedy for consumption." Ozomulsion is also a sure cure, if the literature is to be believed. To cure one's self twice of the same disease savors of reckless extravagance, but as "a perfect and permanent cure will be the inevitable consequence," perhaps it's worth the money. It would not do to charge Dr. T. A. Slocum with fraud, because he is, I suppose, as dead as Lydia E. Pinkham; but Mr. A. Frank Richardson is very much alive, and I trust it will be no surprise t him to see here stated that his Ozomulsion makes claims that it can not support, that his Psychine is considerably worse, that his special cure offer is a bit of shameless quackery and that his whole Slocum Consumption Cure is a fake and a fraud so ludicrous that its continued existence is a brilliant commentary on human credulousness. . . .

Peruna, Liquozone, Duffy's Malt Whiskey, Pierce's Golden Medical Discovery and the other "blanket" cures include tuberculosis in their lists, claiming great numbers of well-authenticated cures. From the imposing book published by the R. V. Pierce Company of Buffalo I took a number of testimonials for investigation; not a large number, for I found the consumption testimonials rather scarce. From fifteen letters I got results in nine cases. Seven of the letters were returned to me marked "unclaimed," of which one was marked "Name not in the directory," another "No such postoffice in the state," and a third "Deceased." The eighth man wrote that the Golden Medical Discovery had cured his cough and blood-spitting, adding: "It is the best lung medisan I ever used for lung trubble." The last man said he took twenty-five bottles and was cured! Two out of nine seems to me a suspiciously small percentage of traceable recoveries. Much stress has been laid by the Proprietary Association of America, through its press committee, on the suit brought by R. V. Pierce against the *Ladies' Home Journal*, the implication being (although the suit has not yet been tried) that a reckless libeler of a noble and worthy business has been suitably punished. In the full appreciation of Dr. Pierce's attitude in the matter of libel, I wish to state that in so far as its claim of curing consumption is concerned his Golden Medical Discovery is an unqualified fraud.

One might suppose that the quacks would stop short of trying to deceive the medical profession in this matter, yet the "consumption cure" may be found disporting itself in the pages of the medical journals. For instance, I find this advertisement in several professional magazines:

"McArthur's Syrup of Hypophosphites has proved itself, time and time again, to be positively beneficial in this condition [tuberculosis] in the hands of prominent observers, clinicians, and, what is more, practicing physicians, hundreds of whom have written their admiring encomiums in its behalf, and it is the enthusiastic conviction of many that *its effect is truly specific.*"

Which, translated into lay terms, means that the syrup will cure consumption. I find also in the medical press "a sure cure for dropsy," fortified with a picture worthy of Swamp-Root or Lydia Pinkham. Both of these are frauds in attempting to foster the idea that they will *cure* the diseases, and they are none the less fraudulent for being advertised to the medical profession instead of to the laity. . . .

Consumption is not the only incurable disease in which there are good pickings for the birds of prey. In a recent issue of the *New York Sunday American-Journal* I find three cancer epilepsy cures and a "case of paralysis cured." . . . As space lacks to consider individually the nature of each nostrum separately, I list briefly, for the protection of those who read, a number of the more conspicuous swindles of this kind now being foisted on the public:

Rupert Wells' Radiatized Fluid, for cancer.
Miles' Heart Disease Cure.
Miles' Grand Dropsy Cure.
Dr. Tucker's Epilepsy Cure.
Dr. Grant's Epilepsy Cure.
W. H. May's Epilepsy Cure.
Dr. Kline's Epilepsy Cure.
Dr. W. O. Bye's Cancer Cure.
Mason's Cancer Cure.

Dr. Williams' Pink Pills for Pale People, which are advertised to cure paralysis and are a compound of green vitriol, starch and sugar.

Purchasers of these nostrums not only waste their money, but in many cases they throw away their only chance by delaying proper treatment until it is too late.

Properly, a "cure" known as Bioplasm belongs in this list, but so ingenious are its methods that it deserves some special attention. In some of the New York papers a brief advertisement reading as follows occupies a conspicuous position:

"After suffering for ten years the torture that only an ataxic can know, Mr. E. P. Burnham of Delmar, N. Y., has been relieved of all pain and restored to health and strength, and the ability to resume his usual pursuits, by an easily obtained and inexpensive treatment which any druggist can furnish. To any fellow-sufferer who mails him a self-addressed envelope, Mr. Burnham sends free this prescription which cured him."—*Adv.*

Now, people who give away something for nothing and spend money advertising for a chance to do it are as rare in the patent medicine business as out of it, and Delmar, N. Y., is not included in any map of Altruria that I have learned of. E. P. Burnham, therefore, seemed worth writing to. The answer came back, promptly inclosing the prescription and explaining the advertiser's purpose:

"My only motive in the notice which caught your attention is to help other sufferers. *You owe me nothing. I have nothing to sell.* When you are benefited, however, if you feel disposed and able to send me a contribution to assist me in making this great boon to our fellow-sufferers better known, it will be thankfully received and used for that purpose."

I fear that Mr. Burnham doesn't make much money out of grateful correspondents who were cured of locomotor ataxia by his prescription, because locomotor ataxia is absolutely and hopelessly incurable. Where Mr. Burnham gets his reward, I fancy, is from the Bioplasm Company of 100 William street, New York, whose patent medicine he prescribed for me. I should like to believe that his "only motive is to help other sufferers," but as I find, on investigation, that the advertising agents who handle the "Burnham" account are the Bioplasm Company's agents, I am regretfully compelled to believe that Mr. Burnham, instead of being of the tribe of the good Samaritan, is probably an immediate relative of Ananias. The Bioplasm Company also proposes to cure consumption, and is worthy of a conspicuous place in the Fraud's Gallery of nostrums. . . .

There are being exploited in this country to-day more than 100 cures for diseases that are absolutely beyond the reach of drugs. They are owned by men who know them to be swindles, and who in private conversation will almost always evade the direct statement that their nostrums will "cure" consumption, epilepsy, heart disease and ailments of that nature. Many of them "guarantee" their remedies. They will return your money if you aren't satisfied. And they can afford to. They take the lightest of risks. The real risk is all on the other side. It is their few pennies per bottle against your life. Were the facile patter by which they lure to the bargain a menace to the pocketbook alone, one might regard them only as ordinary followers of light finance, might imagine them filching their gain with the confidential, half-brazen, half-ashamed leer of the thimblerigger. But the matter goes further and deeper. Every man who trades in this market, whether he pockets the profits of the maker, the purveyor or the advertiser, takes toll of blood. He may not deceive himself here, for here the patent medicine business is nakedest, most cold-hearted. Relentless greed sets the trap and death is partner in the enterprise.—*Extract from Collier's Weekly*, Jan. 13, 1906.

Correspondence

Is Cancer Contagious?

MONTREAL, CANADA, Jan. 10, 1906.

To the Editor:—For more than ten years I have been convinced that cancer is a contagious disease, the cause of the contagion being either a cell or a microbe contained in the discharges. I am now gathering facts to prove that it is not hereditary, as most people believe. One of the facts which has become very apparent from the study of my cases is that it is the exception for a cancer patient to have had a father or mother who has died from cancer; while quite a number of them had come in contact with cancer patients who were not related to them and from whom I believe they contracted the disease. I would like to hear from any of your readers who have made similar observations. It would also be very interesting to know if there is any village, among the inhabitants of which no cases of cancer had ever occurred, until some one had imported the disease from another place, after which it has spread to others in the village. Any one sending me facts bearing on these two important points will receive due credit in the article which I am preparing for the meeting of the British Medical Association in Toronto this year. I recently published an article declaring that cancer was becoming very rare in my public and private practice, which I attributed to the fact that every woman with a lacerated cervix in the practice of myself and friends, had had the injury repaired or the cervix amputated so as to remove the scar tissue on which cancer grows best. Since then I have received a letter from a prominent gynecologist of Boston saying that this has been his experience also. Not only that, but I believe that a woman suffering from cancer of the uterus may, during a year or two before she dies, infect her friends and neighbors with cancer of the face, lips, throat, stomach and intestine. If this is so, it is important to make it known so that there may be a crusade for stamping out cancer by early operation, or when too late for that, then by isolation and disinfection. I am sure that no more important subject could occupy your pages than the investigation of the origin and spread of this terrible disease.

A. LAPTHORN SMITH.

Queries and Minor Notes

SACCHARASCOPE ESTIMATION OF SUGAR IN URINE.

To the Editor:—1. Can you give me in full the method employed with the saccharascope (Nelson Baker & Co.)?

2. Is it an accurate means of estimating sugar in the urine? How does it compare in accuracy with the saccharometer (Einhorn's)?

3. What are the definite amounts of the reagents used with Ruhemann's uricometer? G. K.

ANSWER.—The saccharascope of Nelson Baker & Co. consists of two chambers or receivers, one to contain the fermenting solution, the other to collect and measure the gas evolved in the fermentation. The fermenting chamber is filled to the mark with the urine, which is previously mixed with 15 grains of compressed yeast. A compensation tablet is then added, which will evolve just enough carbonic acid to saturate the liquid so that all the gas collected will represent sugar present in the urine. The measuring chamber is filled with water on which floats a layer of oil to prevent absorption of the gas, the upper surface of the oil being brought exactly to the zero mark. Insert the stoppers securely and set the instrument aside in a place where the temperature will be constantly 80 F., providing a container to receive the water which flows from the outlet tube as the fermentation proceeds. Allow the instrument to stand for 24 hours, and then read off the volume of gas collected, which will indicate directly the proportion of sugar present. If the preliminary examination has indicated more than three grains of sugar to the ounce, the urine will have to be diluted accordingly. The amount of urine used in this test is one ounce, and the amount of sugar indicated is grains per fluid ounce.

2. This method is as accurate as any such method can be, and depends on the accuracy of the calibration of the measuring chamber. If properly manipulated it should give a little more accurate results than Einhorn's method, but either are sufficiently accurate for clinical purposes.

3. The method and amounts of reagents used in the Ruhemann's uricometer are as follows: The test is based on the principle that a brown iodin solution is decolorized by a certain proportion of uric acid. Fill the dry glass tube to the lowest mark (S) with carbon bisulphid. A solution consisting of 1.5 grains iodin, 1.5 grains potassium iodid, 15 grains absolute alcohol and 185 grains distilled water is added up to mark J. Add urine to mark 2.45 (2.6 c.c.). Close the tube with glass stopper and shake well; the CS_2 becomes of a dark copper brown color. Add more urine under continued shaking, and the CS_2 will absorb all free iodin and the mixture will appear like urine. Slowly adding more urine will change the yellow foam into white foam. After a while the color of CS_2 will turn pink. Keep adding urine and shaking until only a slight reddish coloration of CS_2 remains. Now shake vigorously and the CS_2 will turn porcelain white and the urine will look like whey. The test is finished when the indicator appears snow white, showing that all the iodin has been decolorized by the urine. Read off the proportion of uric acid at the surface of the fluid as parts per M. For this test the urine must be slightly acid.

INTERNATIONAL SURGICAL AND MEDICAL CONGRESSES.

GOVERNORS HARBOR, BAHAMAS, Dec. 27, 1905.

To the Editor:—I would like to attend the International Surgical Congress to take place next spring in (I believe) Madrid, Spain. Would you kindly inform me who the secretary is and how I may become a member? E. L. GROSSMAN, M.D.

ANSWER.—The next International Surgical Congress is to be held at Brussels in 1908. Further particulars will be found in THE JOURNAL, Oct. 14, 1905, page 1418. Since our correspondent speaks of the congress as to take place next spring in Madrid, he probably means the International Medical Congress. By referring to the index to the last volume of THE JOURNAL, Dec. 30, 1905, page 2055, we find that the International Medical Congress was mentioned on pages 337, 932, 1010 and 1582. The program is given on page 337, July 29, 1905. The secretary of the American Committee is Dr. Ramon Guiteras, 75 W. 55th St., New York. In volume xliv of THE JOURNAL, January to June, 1905, the International Medical Congress (according to the index on page 2033 of June 24, 1905) is mentioned on pages 139, 881, 1046, 1129, 1140, 1941 and 1942. On the two pages last mentioned are given the details of membership.

Marriages

JOHN W. BOLTON, M.D., Iola, Kan., at Kansas City, Mo., January 3.

CRAIG BARROWS, M.D., to Miss Elfreda De Reene, both of Savannah, Ga., January 3.

ALFRED P. HOLTZ, M.D., to Miss Minnie D. Droeger, both of Seymour, Wis., December 27.

LEWIS BERLIN, M.D., Norfolk, Va., to Miss Pauline Yaffee of Philadelphia, January 14.

JOHN P. MULRENAN, M.D., to Miss Mary Carroll Byrne, both of Philadelphia, January 10.

BENJAMIN F. CORWIN, M.D., to Miss Ada H. Pettit, both of Brooklyn, N. Y., January 5.

FRANK W. FLEISCHAKER, M.D., to Miss Edna F. Levy, both of Louisville, Ky., January 10.

EDWIN R. KEEN, M.D., Caliente, Nev., to Miss Cora V. Achenback of Ogden, Utah, recently.

JOHN ROSS SIMPSON, M.D., to Miss Alma Fifine Parrott, both of Atlanta, Ga., January 2.

EDWARD T. ALFORD, M.D., Chicago, to Miss Bess Williston of Manchester, Iowa, January 17.

E. MARVIN DIBBLE, M.D., Marine, S. C., to Miss Aliem Nebb of Greenwood, S. C., December 28.

JOHN M. GARRINGER, M.D., Oelwein, Iowa, to Miss May McCool of Boonville, Ind., January 1.

CHARLES H. C. MILLS, M.D., Charlotte, N. C., to Miss Eliza Lamb of Williamston, N. C., January 9.

CHARLES F. GLADDING, M.D., Folsom, Cal., to Mrs. Harry Heywood of Berkeley, Cal., January 1.

EDWARD H. CLAUD, M.D., Portsmouth, Va., to Miss Daisy Camilla Nash of Norfolk, Va., January 16.

TAYLOR EDWIN DARBY M.D., Ancon, Canal Zone, to Miss Helen Story, at Barnesville, Md., January 11.

Deaths

Benjamin Walter Taylor, M.D. Medical College of the State of South Carolina, Charleston, 1858; a member of the American Medical Association; surgeon of the Second South Carolina Cavalry, C. S. A., and later medical director of the cavalry corps of the Army of Northern Virginia, with the rank of colonel; vice-president and president of the South Carolina Medical Association; three times president of the Columbia Medical Society; once president of the State Board of Health; delegate to the International Medical Congress at Philadelphia in 1876; a member of the Southern Surgical and Gynecological Association; visiting physician to the Columbia Hospital and to the South Carolina College Infirmary; a member of the board of regents of the State Hospital for the Insane, Columbia, since 1878, and for several years president of the board; one of the oldest and most distinguished practitioners of the state, died at his home in Columbia, December 27, from pneumonia, after an illness of six days, aged 71.

James W. Holland, M.D. Department of Medicine of the University of Pennsylvania, Philadelphia, 1894; a member of the American Medical Association; assistant medical examiner of the West Hampden district of Massachusetts; for two years an acting assistant surgeon in the Army, and on duty in the Philippine Islands; a member of the board of health of Westfield; a member of the staff of Noble Hospital; a member of the Massachusetts Medical Society, of the Hampden District Medical Society, of the Massachusetts Medicolegal Society, and of the Association of Military Surgeons of the United States, died at his home in Westfield December 29, from nephritis, after a short illness, aged 37.

James Lang Harriman, M.D. Medical School of Maine at Bowdoin College, Brunswick, 1857; a member of the American Medical Association, Massachusetts Medical Society, Middlesex South District Medical Society and White Mountain Medical Society; assistant surgeon of the Thirteenth Massachusetts Volunteer Infantry in the Civil War; once a member of the legislature; for 37 years member or chairman of the Hudson school board; the oldest resident physician in Middlesex County, Mass., died at his home in Hudson, December 28, from nephritis, after an illness of nine weeks, aged 78.

Thomas Clifford Potter, M.D. Department of Medicine of the University of Pennsylvania, Philadelphia, 1871; a veteran of the Civil War; surgeon of the veteran corps of the First Infantry, N. G. Pa.; one of the founders of, and consulting physician to the Germantown Hospital; a member of the Philadelphia County Medical Society and a fellow of the College of Physicians of Philadelphia, died from heart disease, January 8, at his home in Germantown, Philadelphia, after an illness of several months, aged 57.

Theodore J. Bluthardt, M.D. Chicago Medical College of Chicago, 1861; assistant surgeon in the First Illinois Volunteer Cavalry during the Civil War; county physician of Cook County from 1866 to 1869 and from 1880 to 1888; a member of the board of county supervisors in 1869, and president of the board in 1870; in 1872 a member of the board of education and superintendent of compulsory education; United States consul at Barmen, Germany, died at his post in that city, January 15, aged 68.

Calvin Snook, M.D. College of Physicians and Surgeons, Keokuk, Iowa, 1869; local surgeon for the Burlington System; some-time president of the Southwestern Iowa Medical Association, and of the Tri-state Medical Society of Illinois, Iowa and Michigan; a member of the Iowa State Medical Society; a member of the school board and the city council of Fairfield, Iowa, who was found unconscious in his office, January 2, died at his home two days later, from cerebral hemorhage, aged 57.

Emmet Cooper Dent, M.D. Bellevue Hospital Medical College, New York City, 1879; superintendent of the Manhattan State Hospital for the Insane, Ward's Island, and professor of nervous and mental diseases at the clinic of the New York Hospital of Physicians and Surgeons; member of the Medico-Psychological Society, New York Academy of Medicine, state and city medical societies, died suddenly of heart disease, January 12, aged 47.

Daniel Meigs Webb, M.D. Medical Institution of Yale College, New Haven, Conn., 1849; a member of the Connecticut Medical Society and the New Haven County Medical Association; for 56 years a practitioner of Madison, Conn., died at his home in that place, January 1, from senile debility, aged 83.

Harrison Hathaway, M.D. Miami Medical College, Cincinnati, 1870; a member of the American Medical Association; a veteran of the Civil War; for 10 years a member of the Toledo Public Library board; one of the most esteemed practitioners of East Toledo, was struck by a train while walking across a trestle and instantly killed, January 4, aged 64.

Thomas H. Nott, M.D. Long Island College Hospital, Brooklyn, N. Y., 1874; surgeon in the Confederate service during the Civil War; president of the Texas State Medical Association in 1886; ex-president of the Board of Medical Examiners for the Twenty-third and Twenty-fourth districts, died at his home in Goliad, Texas, December 29, from heart disease.

Karl O. Bendeke, M.D. Chicago Medical College, 1869; of Minneapolis, Minn.; a member of the American Medical Association; for the last 15 years a specialist in ophthalmology and otology; twice a member of the city council, died in St. Barnabas' Hospital, Minneapolis, January 5, a short time after an operation for disease of the kidney, aged 64.

Emil C. Brendel, M.D. University of Erlangen, Germany, 1853; for many years a practitioner of Springfield, Ill.; surgeon of the Eighty-second Illinois Volunteer Infantry in the Civil War; eminent as a scientist and entomologist, died at his home in Cedar Rapids, Iowa, January 6, after a long period of invalidism, aged 72.

David Thomas Jenkins, M.D. Western Pennsylvania Medical College, Pittsburg, 1897, Pittsburg; professor of orthopedics and assistant to the chair of nervous diseases in his alma mater; local surgeon for the Pennsylvania System, died at the West Penn Hospital, Pittsburg, December 21, from pneumonia, aged 41.

Joseph Warren Hancock, M.D. University of Buffalo (N. Y.) Medical Department, 1870; clerk of the Pierce County board in 1877; county judge in 1885 and 1889, and a member of the State Board of Health in 1894, died at his home in Ellsworth, Wis., December 28, after an illness of about four years, aged 57.

John Dorrance Parsons, M.D. New Orleans School of Medicine, 1861; assistant surgeon of Bass' regiment, and Twelfth Texas Cavalry, C. S. A.; a member of the legislature in 1882; for several years president of the Dallas County Medical Association, died at his home in Dallas, December 26, aged 66.

Charles F. Allan, M.D.S., a member of the American Medical Association, and chairman of the Section on Stomatology, 1906; orderly sergeant during the Civil War; member of the American Dental Association, died January 11 at his home in Newburgh, N. Y., from cerebral hemorrhage, aged 62.

Robert W. Steger, M.D. Vanderbilt University Medical Department, Nashville, 1877, formerly of Chicago, and since September last a resident of New York City, died in Bellevue Hospital, from the effects of morphin and chloroform, taken with suicidal intent, January 10, aged 48.

Clifford L. Stewart, M.D. Detroit (Mich.) College of Medicine, 1892; a member of the Wayne County Medical Society and for four years milk inspector for the Detroit Board of Health, died at Grace Hospital in that city, December 25, after an illness of six weeks, aged 38.

Frederick H. Simmons, M.D. Harvard University Medical School, Boston, 1851; for several terms justice of the peace; once a member of the city council of Provo, Utah, died at his home in that city, from senile debility, December 15, after a decline of two years, aged 74.

George H. Germain, M.D. Rush Medical College, Chicago, 1894, of Ponca City, Okla., died at St. Francis Hospital, Wichita, Kan., January 3, from septicemia following a railway accident four days before in which his foot was crushed necessitating amputation.

George Hasty, M.D. Cincinnati, Ohio, 1860; founder of a medical college and a member of its faculty for many years; for 20 years a medical editor, died at his home in Indianapolis, December 23, after an illness of four weeks, from tuberculosis of the larynx, aged 70.

W. H. McClain, M.D. St. Louis College of Physicians and Surgeons, 1893, assistant physician at the West Virginia Hospital for the Insane, Weston, died at that institution, December 27, from acute gastritis, after an illness of two weeks, aged about 40.

Henry Pearce, M.D. University of Michigan Department of Medicine and Surgery, Ann Arbor, 1857, assistant surgeon of the One Hundred and Fiftieth New York Volunteer Infantry during the Civil War, died at his home in Paulina, N. Y., December 30.

H. P. **Montborne, M.D.** Faculty of Paris, France, 1870; a member of the American Medical Association; a specialist in electrotherapeutics; major-surgeon in the French army during the Franco-German War, died at his home in Spokane, Wash., December 3, from nephritis, after an illness of three weeks, aged 57.

Uhler D. **McDowell, M.D.** Ohio Medical College, Cincinnati, 1888, formerly medical inspector of the Colorado State Board of Health and police magistrate of Longmont, died at his home in that city, January 3, after a long illness from tuberculosis, aged 40.

William **Edgar Hemphill, M.D.** Baltimore Medical College, 1892; of Arden, N. C.; coroner of Buncombe County, died at the Clarence Barker Memorial Hospital, Biltmore, N. C., December 25, a day after an operation for appendictis, aged 35.

Selwyn **A. Russell, M.D.** Albany (N. Y.) Medical College, 1877, died at his home in Poughkeepsie, January 11, from starvation due to experimentation on himsef in accordance to one of his theories in regard to the influence of mind over matter.

Horace **M. Nash, M.D.** University of Vermont Medical Department, Burlington, 1876, of Worcester, a member of the Massachusetts Medical Society, died suddenly in the City Hospital, Worcester, December 24, from heart disease, aged 61.

William **Ernest Maddox, M.D.** Medical Department University of Texas, Galveston, 1895; for three years hospital steward, United States Army in the Philippine Islands; died in Hobart, Okla., December 29, from pneumonia, aged 31.

Abbie **Cutler Tyler, M.D.** New England Female College, Boston, 1868, of Washington, D. C., a member of the Medical Association of the District of Columbia since 1893, died in Warren, Mass., January, from heart disease, aged 70.

Uriah **H. McMullen, M.D.** Jefferson Medical College, Philadelphia, 1898, a member of the American Medical Association, of Merrittstown, Pa., died at the Jefferson Medical College Hospital, Philadelphia, January 1, aged 33.

Daniel **R. Hibbard, M.D.** University of Michigan Department of Medicine and Surgery, Ann Arbor, 1864, city supervisor of Sturgis, Mich., for several years, died at his home in that city, January 2, after a prolonged invalidism.

George **H. Rheingans, M.D.** Milwaukee Medical College, 1898, a member of the Washington County Medical Society, died at his home in South Germantown, Wis., January 7, after an illness of nearly two months, aged 39.

D. Heber **Plank, M.D.** Department of Medicine of the University of Pennsylvania, Philadelphia, 1867, a member of the Berks County Medical Association, died at his home in Morgantown, Pa., January 4, aged 63.

John **F. Mulherin, M.D.** Niagara University Medical Department, Buffalo, N. Y., 1888, of Syracuse, N. Y., died at St. Joseph's Hospital in that city, January 7, from diabetes, after an illness of one year, aged 39.

Milburn Hill Logan, M.D. San Francisco, 1881, of San Francisco, who had been under treatment at the Agnew State Hospital, escaped from his home in San Francisco, and died from exposure, December 26, aged 50.

Abraham Rosenthal, M.D. College of Physicians and Surgeons in the City of New York, 1890, died recently at his home in Farmington, N. M. He had been ill for several years with pulmonary tuberculosis.

Frank **M. King, M.D.** Cincinnati, 1892, of Damascus, Ohio, committed suicide by shooting himself in the head, while despondent on account of domestic trouble, at Alliance, Ohio, January 2, aged 45.

Mary **A. Hayward, M.D.** New York City, 1883, a practitioner for fifty years, died at the home of her daughter in Brooklyn, N. Y., January 3, from disease of the stomach, after an illness of a week, aged 77.

Clayton **L. Hill, M.D.** University of Buffalo (N. Y.) Medical Department, 1864, a surgeon during the Civil War, died suddenly at his home in Buffalo, December 25, from heart disease, aged 66.

John **Nelson Bowers, M.D.** Medical Department of Western Reserve University, Cleveland, Ohio, 1885, died at his home in Westfield, N. Y., January 7, after a long illness from nephritis, aged 48.

John **Kane, M.D.** College of Physicians and Surgeons of Ontario, Toronto, 1905, died at his home in Cornwall, Ont., December 7, from injuries received in a runaway accident, aged 31.

Jacob McDowell, M.D. (County License, 1897), for more than half a century a practitioner of Adams County, Ind., died at his home near Geneva, Ind., December 18, from senile debility, aged 77.

Oliver P. Askam, M.D. Kentucky School of Medicine, Louisville, 1884, died at his home in Mountain View, Cal., January 2, from disease of the liver, after an illness of three weeks, aged 42.

Alexander H. Cooke, M.D. New York University, New York City, 1846, once chief of staff at St. Joseph's Hospital, Chicago, died at his apartment in Chicago, January 8, aged 83.

Peter F. Bellinger, M.D. Bellevue Hospital Medical College, New York City, 1879, of Durango, Colo., died at Mercy Hospital in that city, January 5, after a short illness, aged 50.

Dryden Johnson, M.D. New York University, New York City, 1878, of Antonito, Colo., died at St. Joseph's Sanitarium, Albuquerque, N. M., January 7, from nephritis, aged 55.

George A. Martin, M.D. Pennsylvania, 1886, a veteran of the Civil War, died at his home in Boone, Iowa, January 7, from bronchitis, after an illness of two months, aged 64.

John Gordon Frierson, M.D. Vanderbilt University Medical Department, Nashville, Tenn., 1886, died at his home in Mount Pleasant, Tenn., January 5, from pneumonia, aged 41.

Richard Hodgson, M.D. New York, 1867, secretary and treasurer of the Society for Psychical Research, died suddenly in Boston, December 21, from heart disease.

William B. Stoner, M.D. Kentucky School of Medicine, Louisville, 1892, of Sunbury, Pa., died at Clifton Springs Sanitarium, N. Y., January 9, aged 60.

Dudley Robinson, M.D. Medical College of Alabama, Mobile, 1860, a Confederate veteran, died at his home in Robinson Springs, Ala., January 1, aged 66.

George H. Randle, M.D. University of Nashville Medical Department, 1856, died at his home in Waco, Texas, January 5, after a long illness, aged 69.

Abraham L. Lewis, M.D. New York University, New York City, 1897, died from starvation in his room in Brooklyn, N. Y., December 27, aged 33.

John R. Murray, M.D. Atlanta (Ga.) Medical College, 1895, of Hazen, Ark., died suddenly at De Vall's Bluff, Ark., December 27, from drug addiction.

G. S. Millikan, M.D. Joplin (Mo.) College of Physicians and Surgeons, 1883, died recently from dropsy at his home in Schell City, Mo., aged 55.

Alexius L. Middleton, M.D. University of Maryland School of Medicine, Baltimore, 1860, died in Prince George County, Md., January 8, aged 73.

Francis M. Hill, M.D. Examination, Iowa, died at his home in Persia, Iowa, January 1, after a short illness from neuralgia of the stomach, aged 61.

Curtis T. Hines, M.D. New Orleans School of Medicine, 1869, died at his home in West Monroe, La., January 5, after a short illness, aged 60.

Richard L. Kendall, M.D. Illinois, 1897, of Aurora, Ill., died from nephritis at San Diego, Cal., January 1, after a long illness, aged 33.

Joseph L. Davis, M.D. Starling Medical College, Columbus, Ohio, 1889, died at his home in Charleston, W. Va., December 29, aged 46.

William B. Kaiser, M.D. New York, 1897, died at his home in Hoboken, N. J., December 29, after a lingering illness, aged 31.

William C. Nelson, M.D. Kentucky School of Medicine, Louisville, 1859, died at his home in Salvisa, Ky., December 17, aged 68.

Harriet N. F. Cooke, M.D. New York, 1868, died from cerebral hemorrhage at her home in New York City, January 7, aged 75.

Thomas D. Goodwyn, M.D. Atlanta, 1884, a Confederate veteran, died at his home in Oakland, Ga., December 29, aged 64.

Alois Blank, M.D. St. Louis Medical College, 1869, died at his home in St. Louis, January 5, after a brief illness, aged 57.

Harry Munger, M.D. Ohio, 1892, died at his home in Carlisle, Ky., January 4, after a lingering illness, aged 48.

Stacy Jones, M.D. Pennsylvania, 1853, for 33 years a practitioner of Darby, Pa., died recently at Seattle, Wash.

Louis A. Melze, M.D. Pennsylvania, 1885, died at his home in Chicago, December 28, aged 55.

Richard Randolph, M.D., died at his home in Philadelphia, January 10, aged 83.

Association News

New Secretary of Section on Nervous and Mental Diseases.

Owing to the ill health of Dr. David I. Wolfstein, secretary of the Section on Nervous and Mental Diseases, the chairman has appointed Dr. T. H. Weisenburg of Philadelphia, as secretary for the ensuing year. Dr. Wolfstein will go abroad as soon as he is able to travel.

NATIONAL LEGISLATIVE COUNCIL.

Proceedings of the Meeting, held at Washington, D. C., Jan. 9-11, 1906.

Preliminary Meeting of the National Committee on Legislation.

The Committee on Legislation met at the New Willard Hotel, Washington, D. C., 10 a. m. There were present: Dr. William H. Welch (Maryland), Dr. W. L. Rodman (Pennsylvania), and the Chairman, Dr. Charles A. L. Reed (Ohio).

The various questions of legislation were taken up in the following order (*a*) The Army Medical Reorganization Bill; (*b*) the Pure Food and Drug Bill; (*c*) the Question of a Department of Public Health; (*d*) National Incorporation of the American Medical Association; (*e*) District of Columbia bills.

The address of the Chairman, to be presented to the National Legislative Council, was then delivered and, after some changes, was adopted.

The committee then adjourned to attend the conference with the National Legislative Council, January 9-11.

CHARLES A. L. REED, Chairman,
WILLIAM L. RODMAN, Secretary.

Opening Session.

The National Legislative Council of the American Medical Association met at the New Willard Hotel, Washington, D. C., Jan. 9, 1906, at 1:19 p. m.

Charles A. L. Reed, Chairman of the National Legislative Committee, called the meeting to order. At his request C. S. Bacon of Illinois was appointed Secretary. The roll was called as follows:

Dr. I. H. Moore.....Treadwell, Alaska.
†Dr. W. H. Sanders.....Montgomery, Alabama.
†Dr. C. T. Drennen.....Hot Springs, Arkansas.
Dr. Clarence E. Yount.....Prescott, Arizona.
Dr. F. B. Carpenter.....San Francisco, California.
Dr. Walter A. Jayne.....Denver, Colorado.
Dr. Elias Pratt.....Torrington, Connecticut.
†Dr. Geo. N. Acker.....District of Columbia.
Dr. J. D. Fernandez.....Jacksonville, Florida.
Dr. F. M. Ridley.....La Grange, Georgia.
Dr. L. P. McCalla.....Boise, Idaho.
†Dr. A. E. Sterne.....Indianapolis, Indiana.
Dr. B. F. Fortner.....Vinita, Indian Territory.
‡Dr. C. S. Bacon.....Chicago, Illinois.
‡Dr. S. Bailey.....Mt. Ayr, Iowa.
‡Dr. Geo. K. Purvis.....Wichita, Kansas.
†Dr. C. Z. Aude.....Cecilian, Kentucky.
Dr. Wm. M. Perkins.....New Orleans, Louisiana.
Dr. Byron F. Barker.....Bath, Maine.
†Dr. John S. Fulton.....Baltimore, Maryland.
‡Dr. S. D. Presbrey.....Taunton, Massachusetts.
Dr. Flemming Carrow.....Detroit, Michigan.
Dr. Arthur Sweeney.....St. Paul, Minnesota.
Dr. B. L. Cully.....Jackson, Mississippi.
Dr. F. J. Lutz.....Kansas City, Missouri.
Dr. T. J. Murray.....Butte, Montana.
†Dr. A. S. von Mansfelde.....Ashland, Nebraska.
Dr. Geo. H. Thoma.....Reno, Nevada.
Dr. Geo. Cook.....Concord, New Hampshire.
†Dr. L. M. Halsey.....Williamstown, New Jersey.
Dr. G. W. Harrison.....Albuquerque, New Mexico.
Dr. E. Elliott Harris.....New York City, New York.
Dr. J. Howell Way.....Waynesville, N. Carolina.
Dr. J. D. Taylor.....Grand Forks, N. Dakota.
†Dr. Chas. A. L. Reed.....Cincinnati, Ohio.
Dr. C. S. Bobo.....Norman, Oklahoma Territory.
Dr. Kenneth A. J. Mackenzie.....Portland, Oregon.
Dr. Henry Beates, Jr.....Philadelphia, Pennsylvania.
Dr. G. T. Swarts.....Providence, Rhode Island.
†Dr. O. B. Mayer.....Newberry, S. Carolina.
Dr. R. C. Warne.....Mitchell, S. Dakota.
*Dr. D. E. Nelson.....Chattanooga, Tennessee.
†Dr. J. T. Wilson.....Sherman, Texas.
Dr. Henry La Motte.....Salt Lake City, Utah.
Dr. E. T. Brady.....Abington, Virginia.
Dr. A. B. Bisbee.....Montpelier, Vermont.
Dr. R. L. Thomson.....Spokane, Washington.
Dr. W. W. Golden.....Elkins, W. Virginia.
‡Gilbert E. Seaman.....Milwaukee, Wisconsin.
G. L. Strader.....Cheyenne, Wyoming.
†Surgeon-General Walter Wyman.....
U. S. P. H. and M.-H. Ser., Washington, D. C.
Dr. R. A. Marmion.....
U. S. Navy Medical Ser., Washington D. C.
†Surgeon-General R. M. O'Reilly.....
U. S. Army Medical Ser., Washington, D. C.

* Deceased.
† Present.

William H. Welch and William L. Rodman of the National Legislative Committee; George H. Simmons, Chicago, Editor of THE JOURNAL A. M. A.; H. L. E. Johnson, resident trustee, Washington, D. C., and H. W. Wiley, chief of bureau of chemistry, Agricultural Department, were also present.

Dr. Reed announced that the work of the committees would be laid out at this session and that the committees could report on the following day. He also stated that calls of courtesy would be made on the President of the United States and on heads of the departments, senators and representatives, who had identified themselves with medical legislation. He then addressed the council as follows:

Address of Dr. Charles A. L. Reed on National Medical Legislation.

Medical legislation already pending before Congress is of the utmost importance to the public welfare, while other measures that are in contemplation are calculated still further to promote the agencies of the government created for the conservation of the life and health of the public. Some of these measures have already been brought to the attention of the Legislative Council and, through that body, to the attention of the profession and the public; but, in view of the fact that these same measures are now pending before a new congress, and in view of the fact that the personnel of the Legislative Council has largely changed, the National Legislative Committee has deemed it wise to submit them anew for your consideration.

THE ARMY MEDICAL REORGANIZATION BILL.

The Army Medical Reorganization Bill, which was considered by the former Legislative Council and which has been made the subject of referendum, is one in which the interests of the American medical profession are actively and earnestly centered.

It is to be remembered that the Army was reorganized by the act of Feb. 2, 1901, at which time Congress ignored the recommendations of the Surgeon-General with reference to the reorganization of the Medical Department. This failure on the part of the Congress amounted to a distinct discrimination against the medical department, whose proportionate increase in numbers was much less than that of the army in general. The incidental increases that were given to the Medical Corps were all of lower grades, as a result of which the prospects of promotion of medical officers were much less than those of any other staff corps. The logical result of this unjust discrimination was, first, the resignation of many able men from the service, and, second, the failure of the Army Medical Corps to attract desirable applicants for the vacancies which rapidly increased in number. To correct these defects the present Surgeon-General, through the General Staff, recommended amendatory legislation, by which the number of medical officers should be increased from 320 to 450, exclusive of the Surgeon-General; that the length of service required to secure promotion from the grade of first lieutenant to that of captain be reduced from 5 to 3 years; that examination be provided to determine the fitness for promotion up to and including the grade of colonel, and, finally, that a medical reserve corps be established, to consist of medical men who shall have been examined and, when found fit, commissioned without pay for service as medical officers, with a rank of first lieutenant, but, in case of war or other emergencies, to be subject to call with compensation pertaining to that rank.

The passage of this bill was urged by both Secretary Root and his successor, Secretary Taft, and was further recommended in a special message by President Roosevelt. The increase in number of the Medical Corps they hold is not excessive, while the reduction in the time of service necessary for promotion from first lieutenant to captain simply places the Army Medical Corps in this particular on a footing of equality with the most justly organized medical corps of the Navy. The increase in number of medical officers of the higher grades was simply a restoration of the order of things that existed before 1901, and is another instance in which the Medical Corps of the Army seeks to be placed on a footing equal with that of the Navy. The provision for examination for promotion up to and including the grade of colonel is simply a rational method of applying a wholesome stimulus to the intellectual activity of the corps, while the creation of a reserve corps is intended to do away with the universally condemned

system of contract surgeons, on which the regular Medical Department has been forced to depend for expansion in the presence of war or other emergencies.

It would seem, indeed, that a recapitulation of these facts, coupled with the demonstration that the proposed improvement will cost far less than the relative profits realized, would be all that is necessary to secure the approval of the measure by Congress. As a matter of fact the bill did pass the Senate in the last Congress and was reported favorably from the House Military Committee, but was excluded from consideration in the pressure of business in the closing hours of the short session.

An attempt has been made by the opponents of the measure in Congress to show that the proposed Army Medical Corps will interfere with the employment of medical officers of volunteers in time of war. This is not contemplated by the terms of the proposed measure and would not result in the event of its enactment.

The essential meaning of the Medical Reserve Corps is to furnish the Surgeon-General a reasonable basis of supply for medical services for the regular establishment and to furnish medical men thus employed a respectable military rank. At present the contract surgeon is a mere hireling, with absolutely no official status and no official authority. Under the proposed law he would be accorded a military rank that would give him a definite footing and command for him somewhat of the respect that is due to the representatives of a learned profession—a respect which, I regret to say, is not accorded to the contract surgeon under the existing order of things.

It is hoped that you will see your way clear simply to reaffirm the action of the previous Legislative Council and emphatically to memorialize Congress, urging the passage of this obviously just and salutary measure.

THE PURE FOOD AND DRUG BILL.

The Pure Food and Drug Bill, with the provisions of which you are already familiar and which was made the subject of a referendum to the medical profession by the previous Legislative Council, and which by that means received the unanimous support of the medical profession as represented in over 2,000 county organizations, is again brought to your attention at this time simply to launch it anew on the current of agitation throughout the profession. The bill was introduced into the House by the Committee on Foreign and Interstate Commerce and was passed early in the Fifty-seventh Congress by the House of Representatives by a very large majority. There was, however, no call for the "ayes" and "noes," in so far as I remember. It was laid before the Senate and was approved by the Senate Committee on Manufactures, but was never seriously considered by the Senate at all.

In the Fifty-eighth Congress the bill passed the House of Representatives early in the session by a vote of 201 "ayes" to 69 "noes." This was a very full vote, since the bill excited a great deal of interest and was adopted after two days' debate. It was laid before the Senate, approved with some amendments by the Senate Committee on Manufactures, was placed on the calendar, and after the holidays was taken up and made unfinished business. Judge Swayne, however, and the statehood bill took practically all of the time of the Senate until, finally, everything was out of the way and the bill came up for consideration, when a motion was made to displace it and take up the bill in regard to restoring cadets expelled from the naval academy. This motion received a majority vote, and so the Senate failed finally to consider the bill. Of course, the motion to take up the case of the cadets was made for the purpose of killing the bill and this succeeded. There is no doubt that the bill would have passed the Senate by a great majority if it had once reached the point of a vote.

It is probably unnecessary for you again to make it the subject of a general referendum, as the petitions and correspondence previously sent to Senator Heyburn are being utilized before the present Congress. It is important, however, that the medical profession, and, for that matter, the public, should be informed of the character of the opposition which was aroused by the measure before the last Congress. This opposition was active, insistent, persistent and, judging from the results of the conference, was effective. An analysis of the proceedings in committee showed that the antagonism was derived from the manufacturers of blended and otherwise adulterated liquors, from the fabricators of foodless foods, from importers of foods and medicines so worthless as to be denied a market in Europe where they are made, from the makers and purveyors of worthless or dangerous and enslaving drugs—interests which, in the aggregate, and judged by the character of their business, could not go clean-handed into any court of justice or command an honest footing before any legislative committee or any legislative body in the country.

The interest of the medical profession in this measure is aroused from the special and intimate knowledge possessed by physicians of the influence of impure food on the public health, but more particularly of the disastrous results arising from the dispensing of medicines, many of which fall below the pharmaceutical standard. As a matter of fact while the pharmacopeia assumes to establish a certain standard of drugs there is at present no national law nor, so far as I am informed, any state law to enforce that standard. As a consequence manufacturing establishments, some of them enjoying a high-grade of commercial respectability, openly acknowledge that they manufacture pharmaceutical preparations of varying degrees of purity. They plead in extenuation hat this is to meet the demands of the market. The better druggists—those enjoying a high-class trade—are presumed to dispense the purest of the preparations. Those located in middle-class localities take the second grade, while the lowest, or third grade, is sold to public health departments, hospitals and eleemosynary institutions and country drug stores, but more especially to country practitioners who dispense their own medicines That there should be any but one grade, and that the highest grade of pharmaceutical preparations, is an idea so repugnant to every sense of honesty, decency and common humanity that the present situation becomes revolting. If, then, we go a step further and consider that class of copyrighted preparations that are dispensed by physicians—the so-called "professional proprietaries"—we discover that the trade interests are absolutely without other restraint than that which is presumed to come from the effects assumed or demonstrated of such medicaments on the patients to whom they are administered. In this class of remedies there is not even theoretically a pharmaceutical standard, save as it applies to the ingredients of compounds, and there is no law that will hold the manufacturers of such remedies to the standard which they assume to establish for themselves.

To meet this condition the American Medical Association has established a Council on Pharmacy and Chemistry, which is doing voluntarily in a purely advisory way what ought to be done by the national government—namely, analyzing and testing these preparations for the purpose of advising the medical profession, and, for that matter, the public, of their true character. It is obvious, however, that this movement, salutary as it is, can not be sufficiently far reaching to keep our interstate commerce from being loaded down with preparations, many of which are essentially fraudulent in character. Under these circumstances I feel that it is important that the council reaffirm its previous action, and by such means as it may select to express its high appreciation of the service which has already been rendered by Senator Heyburn, chairman of the Senate Committee on Manufactures, and by Mr. Hepburn, chairman of the House Committee on Interstate and Foreign Commerce, in endeavoring to secure the passage of these salutary laws.

NATIONAL INCORPORATION OF THE AMERICAN MEDICAL ASSOCIATION.

It will be remembered that, a few years ago, an agitation was started to secure a national charter for the American Medical Association, which was then and is now in operation under a charter issued by the state of Illinois. The reasons given for the proposed change were two, namely (1) that the Illinois charter made it necessary that all acts of the Association to be legal had to be either originally taken or subsequently ratified at a meeting held in that state; (2) that the Association was a national organization and ought, therefore, to have a national charter. A special committee was appointed in 1904 to procure the desired legislation by Congress. That committee at the Portland session filed a report of progress, from which it appears: (1) That a bill was framed providing for national incorporation with "*power to transact business anywhere in the United States*," and that, in spite of the fact that the subcommittee having it in charge held it to be unconstitutional, it was introduced and referred to the Committee on Judiciary; (2) that the Committee on Judiciary, holding with the subcommittee that the foregoing provision was unconstitutional, reported the bill back to the House so amended as to constitute the American Medical Association, "*a body corporate and politic within the District of Columbia.*" (3) The original bill was introduced in the Senate, but was never reported from the Committee on Incorporation, to which it was referred. (4) The opinion of the Committee on Judiciary of the House that the original bill was unconstitutional was opposed by the opinion of a distinguished lawyer, who acted

as the adviser of the special committee and who had served as the chairman of that committee in a former congress. The report which was received and, after reference, adopted, contained the recommendation: "That the efforts to secure national incorporation of the American Medical Association be and are hereby continued and that the labors relating thereto become a part of the duty of the Committee on National Legislation and that these duties be no longer referred to a special committee appointed for that purpose."

On attempting the task thus imposed on it the National Legislative Committee finds itself embarrassed by the fact that the Trustees of the Association in their annual report, likewise presented at Portland, contained the following statement:

> The Committee on National Incorporation presented to Congress a bill proposing to incorporate this Association with a national charter. The effort was futile. The bill was soon made to read in such a way as to limit its rights and privileges to the District of Columbia. . . . If through Congress a charter can be obtained limited to the District of Columbia only in its rights and privileges, subject to change at any time as may be dictated by a partisan Congress, then it would be better to leave the matter of incorporation alone. The property interests of the Association in the state of Illinois have now become too great to abandon our charter of incorporation in that state. Where our property interests are, there we should be domiciled. A home corporation, as a rule, gets more rights and privileges than does a foreign one. This is a matter to be viewed from a business stand-point alone. A District of Columbia charter will be no better than an Illinois charter, and would have to be registered as a foreign charter in that state, as would be the case with a charter granted by any state in the Union.

The foregoing recommendations by the Trustees, on the formal adoption of their report, became as much the expression of the House of Delegates as was the adoption of the report of the special Committee on National Incorporation. It thus happens that the National Legislative Committee is unable, from the record, to determine the wishes of the House of Delegates touching this matter. The situation is, furthermore, confused by representations made by the trustees directly to the National Legislative Committee to the effect: (1) That our property is in Chicago; (2) that we can best protect it as an Illinois corporation; (3) that a District of Columbia charter would make us a corporation foreign to the state in which our property is located; (4) that the present charter permits the Association "to carry on its business and have the annual session in any state in the union"; (5) that the dissolution of the Association under the present charter and its reorganization under a District of Columbia charter would entail complications dangerous to the welfare of the Association. In the dilemma created by the conflicting expressions of opinion by the House of Delegates, increased by the doubtful constitutionality of a national charter (assuming that such a thing is possible), emphasized by the undesirability of a charter limited to the District of Columbia, and still further confused by the questionable necessity for any change at all, the National Legislative Committee respectfully submits to you as its councilors and advisers, whether or not it would be better to refer the matter back to the House of Delegates for more specific instructions coupling the reference with the recommendation that the movement be abandoned.

Certain new measures of more than usual importance are already under consideration. Two of them, emanating from the Department of the Interior, are local to the District of Columbia.

AMENDMENT TO THE LUNACY LAWS OF THE DISTRICT OF COLUMBIA.

The laws relating to the commitment and care of the insane in the District of Columbia are in certain particulars not only strikingly defective, but strikingly primitive. Thus commitment by a lay jury only after inquisition conducted in open court as now practiced is neither scientific, just nor humane, either to the patient or to the patient's friends and relatives. To remedy this evil, for an evil it is, it would seem a law is demanded which shall establish in the District of Columbia, just as the majority of states have established, the office of examiners in lunacy and prescribe their qualifications and duties and which shall furthermore provide that inquisitions by such examiners on lunacy may be conducted in chambers. To make such a course mandatory might theoretically lead to serious abuse and consequently to protect the personal rights of those alleged to be insane they, their friends, relatives or legal custodians ought to have the right to demand, and the court ought to have the authority to direct that proceedings be conducted in open session, but always before disinterested experts competent to exercise the most enlightened judgment on mental states. There should be some provision, too, whereby persons skilled in handling the insane, men for men and women for women, should be designated as official custodians to conduct insane patients from their homes to court and from court to the hospital.

I lay before you a copy of the lunacy laws of the District of Columbia, a résumé of the laws of the different states relating to the commitment of the insane, and finally, a copy of the bill by which it is proposed to remedy the serious defects to which I have alluded. You are urged to give this question, with which, as medical men you are already familiar, that studious attention which will enable you to formulate safe and practicable recommendations for the consideration of Congress.

A LAW REGULATING THE TREATMENT OF INEBRIATES IN THE DISTRICT OF COLUMBIA.

Your attention is called to the fact that the laws and practices of the District of Columbia relating to inebriates is, likewise, far from satisfactory. At present inebriates are committed by proceedings obviously based on the theory that they are insane—at least the fact that they, like the insane, are committed after inquisition by jury in open court to a hospital established and conducted for the insane bears, out this theory. This, of course, is fundamentally and scientifically wrong. But assuming that the implied classification of such patients as insane were justified by the facts, the failure to commit them for a long enough time to subject them to successful treatment places the whole proceeding at variance with public policy. Thus, these cases as soon as they are sober, demand to be dismissed, and if this is denied, institute *habeas corpus* proceedings, with the result that they make such an appearance of physical health and mental soundness that they secure their discharge. The inevitable result of such premature discharge, before the physical conditions have been so far restored that the will power and the moral sense can reassert themselves, is a relapse into former habits. The final consequence is that the whole system, extensive enough, has a tendency to perpetuate rather than to curb inebriety. It is, however, the obvious duty of Congress to protect these victims of disease and, as far as possible, restore them to health. To this end you are invited to consider the terms of a measure by which inebriates in the District of Columbia may voluntarily commit themselves, or may be committed by court for a definite period, having possibly a maximum limit of one year.

THE REGULATION OF MEDICAL PRACTICE IN THE GOVERNMENT RESERVATION OF HOT SPRINGS, ARK.

In the early days of the country when Hot Springs, Ark., first became famous for its waters there were no laws, state or national, governing the practice of medicine. As a consequence this Mecca of invalids speedily became infested with many mere adventurers who, without professional qualifications, preyed on the public in the guise of physicians. Their numbers so increased that the struggle for existence, coupled with the spirit of rapacity, forced them to resort to the most dishonorable methods to secure patronage until no patient could be sent to Hot Springs with any assurance that he would reach the reputable physician to whom he had been accredited by his home attendant. The able physicians of the place were unable to protect themselves against this outrage until the government finally took over the springs and immediately adjacent territory as a reservation and placed its administration under the Secretary of the Interior. This officer sought to correct the evils of medical practice by executive order, in which "touting," "drumming" or "steering" patients was prohibited and by which a competent board of medical examiners was appointed to pass on the qualifications of practitioners. The disreputable element resisted this order, with the result that the court set it aside, declaring that it was without warrant of law, but adding significantly that Congress might enact such a law.

The matter is now brought to your attention by the effort of the organized medical profession of Arkansas to procure such legislation from Congress. It is important, therefore, to determine whether it is desirable to secure an act prescribing detailed provisions governing the practice of medicine on this reservation, or whether it is better simply to enlarge the powers of the Secretary of the Interior in the premises. Either means may accomplish the purpose. But something ought to be done to insure protection to the large public that annually visits this, the greatest natural sanatorium in the western hemisphere.

You are urged, therefore, to make some specific recommendations before the conclusion of our present conference.

A DEPARTMENT OF PUBLIC HEALTH WITH REPRESENTATION IN THE CABINET.

A measure to increase the powers and scope of the Public Health and Marine-Hospital service, more particularly with reference to giving it control of all coast and frontier quarantine, is in course of preparation. This step is the result of the recent disastrous epidemic of yellow fever in New Orleans, an epidemic that occurred, in the first instance, by a lack of such powers by the national health service, and that was controlled and promptly stamped out, in the second instance, by the scientific ability and superb executive force of that same service. The step is, however, the immediate result of one of the most remarkable and impressive conferences ever held in this country—a conference participated in by the governors of practically all of our southern seaboard states and of the states contiguous to them. This conference, held in Chattanooga, Nov. 9, 1905, unanimously requested Congress to enact a law placing coast maritime and national frontier quarantine exclusively under the control of the national government and to make necessary appropriations for a systematic campaign against the mosquito pest. The legislatures of different states were petitioned to enact laws as nearly as possible in conformity with the national measure asked for. In the meantime the American Medical Association, in July, had commended Congress for enlarging the powers of the national health service and took the following action:

Resolved, That the American Medical Association recommends to Congress that said service be aided in every proper manner in the prosecution of its important duties and that in its efforts to protect and improve the public health it be strengthened in any manner to promote its efficiency and character as the national health organization.

We are now called on to give effective expression to the sentiment of the national profession as indicated in this resolution. In doing so, however, it is important to consider not only the actual powers vested and to be vested in the national health service, but to take into the account the status that that service is now accorded and the status that ought to be accorded to it in our general scheme of government. It is not now accorded even the dignity of a bureau in charge of a commissioner, but, instead, is a service anamolous in organization and made subordinate to a department of the government to which it bears no more logical relation than it does to practically every other department of government. As a matter of fact the public health problems of this country are of strictly fundamental importance and underlie success in agriculture, manufacture, commerce and every other branch of human activity. This was shown in Cuba, where successful military operations depended on the work of the sanitary corps; it was shown in New Orleans, where the commerce of a city and of a great section of the country was paralyzed pending the suppression of an epidemic; it was and is being exemplified by the brilliant achievements of Colonel Gorgas in the Isthmus of Panama, where the gigantic operations of engineering stands at rest until successful sanitation makes their successful prosecution possible. The administrative machinery necessary to make effective a national public health service is already large, diverse and far reaching; but it is not yet as comprehensive as will be necessary when that service has been expanded to meet the actual demands of the country. Many bureaus, laboratories and other agencies conservative of the public health now exist in other departments of the government and either work at cross-purposes or unnecessarily and at considerable expense duplicate the work of each other. It is perfectly manifest that agencies of such importance ought to be correlated in a single department and that interests of such paramount importance ought to be distinctly and specifically represented in the supreme executive council of the country. These facts give further force to the declared policy of the American Medical Association, that the medical profession ought not to be placed in positions of responsibility without executive authority, subordinate only to that of the chief executive to control and determine results. The logical application of this principle found expression at the session of our national body held in this city as long as fourteen years ago, when a resolution was adopted calling for the organization of a department of public health, with representation in the cabinet of the President.

This question is now in the hands of the Committee on Legislation and is submitted to this conference for counsel and advice. It is suggested that in approaching the problem of creating a department of public health certain cardinal principles ought to be observed. The movement ought to be evolutionary rather than revolutionary, care being taken to conserve and expand rather than to hamper or disturb existing agencies. The national health-conserving agencies now scattered throughout the governmental departments ought to be gathered into a single department with reference to both economy and efficiency. The scope and power of the department consistently with the exercise of the police power reserved to the several states ought to be greatly increased, particularly with reference to coast and frontier quarantine and sanitary control of interstate commerce and of all streams and waters under national jurisdiction. Facilities for hygienic research already established should be expanded, and a policy, both educational and executive, of the widest reaching influence ought to be inaugurated. These are but a few desultory observations, but they culminate in one of great importance, namely, that the movement ought to be undertaken with deliberation, care being taken to draft a proper law, after which there should be no pause until a Department of Public Health becomes an accomplished fact.

Committees Appointed.

Dr. von Mansfelde moved that the subject matter of the chairman's address be divided up, distributing it to the different committees, and that the chairman and secretary help in the deliberations of the committees. Carried.

Dr. H. L. E. Johnson of Washington was then called on to present more in detail the matters referred to by the chairman concerning the subject of canteen legislation in the Army and also the bill for the relief of the widow of General Hammond.

Dr. Reed then announced committees as follows:

ARMY MEDICAL REORGANIZATION BILL: C. S. Bacon, S. Bailey, G. K. Purvis.

PURE FOOD AND DRUG BILL: A. S. von Mansfelde, J. S. Fulton, S. D. Presbrey.

DEPARTMENT OF PUBLIC HEALTH: J. T. Wilson, C. Z. Aude, G. E. Seaman.

REGULATION OF MEDICAL PRACTICE AT HOT SPRINGS: W. H. Sanders, C. T. Drennan, O. B. Mayer.

HAMMOND, CANTEEN AND DISTRICT OF COLUMBIA BILLS: G. N. Acker, J. F. Fulton.

NATIONAL INCORPORATION OF THE AMERICAN MEDICAL ASSOCIATION: W. H. Welch, J. F. Fulton.

Dr. von Mansfelde moved that Dr. Simmons, Secretary of the American Medical Association, be requested to serve on all committees.

The members were requested to meet at 9:30 Wednesday morning to make the calls of courtesy previously announced by the chairman. The session then adjourned to meet at 2 p. m. on Wednesday.

Second Session—Visits to Cabinet Officers and the President.

The members met promptly at 9:30 a. m., and proceded to the War Department, where they were received by the Secretary of War, William H. Taft.

In the course of the interview that followed the Secretary of War emphasized the brilliant success and the continued importance of the sanitary administration on the Isthmus of Panama and invoked the assistance of the council and, through the council, that of the medical profession in maintaining the present scale of compensation paid to the sanitary department on the Isthmus. This schedule of salaries, he explained, was being antagonized in Congress. In his opinion the great value of the work being done by the sanitary corps justified the compensation that was now being paid. He spoke, furthermore, of the Army Medical Reorganization Bill and of the great importance of making it attractive to the highest grade of medical talent and of providing a reserve corps of competent men on whom the surgeon general could rely for expansion under emergencies, whether in war or peace.

The next visit was made to Mr. Hepburn, chairman of the House committee having in charge the Pure Food and Drug Bill known by his name. Mr. Hepburn explained to the committee many details of the campaign to secure the enactment of the bill, and dwelt in particular on the opposition that it had encountered.

Following the call on Mr. Hepburn the council went by invitation of the Secretary of War, Mr. Taft, to be present at the White House on the occasion of the presentation of a medal of honor[1] to Captain James Robb Church of the Medical Corps for distinguished services in carrying wounded soldiers off the field in the midst of the battle of Las Guasimas.

1. See THE JOURNAL, Dec. 30, 1905, p. 2021, and Jan. 13, 1906, p. 130.

Remarks of President Roosevelt.

At the conclusion of the ceremony the Secretary of War introduced the council to the President, who addressed them as follows:

I want to say just a word of greeting to you, and to ask your influence on behalf of the medical corps, not only of the army, but of the navy. There is not a more exacting profession; there is not a profession which makes greater demands on those following it, and which more entitles them to the gratitude of mankind than is the profession which is yours. The army surgeon has to combine the work of your profession with the work of the military men of the line. In saying that, I want to call your attention to two specific things; one that is now being done by the men of your profession, and one the need of men of your profession.

First, the thing that is being done: All the United States is the debtor to the medical men who have accomplished such remarkable work on the Isthmus of Panama. You hear very loose talk about making the dirt fly in Panama. Before making the dirt fly it was necessary to get the microbes under; it was necessary to grapple with the mosquitoes; necessary to eradicate disease.

That has been done to perfection. We have had the foundation laid for that wonderful piece of constructive engineering work, to dig the giant canal. Too much praise can not be given to those who have done this work in Panama. So much for tribute to your compeers.

You recollect the complaint about hygienic conditions during the war with Spain. Complaint was made that the troops were not properly treated, etc. The blame rested not on any man then in office, but on our people as a whole, who had declined, through their representatives, to make provision long in advance for meeting such a need.

The Japanese have given us a good lesson in this, as in many other particulars, by the way they handled their army in the recent war. One of the reasons why their medical department did well—the main reason—was the fact that they had an ample supply of doctors who had been practiced in time of peace in doing the duties they would have to do in war. And until we have provision for an ample corps of doctors in the army so that they can be practiced in time of peace we will not have prepared, as we ought to prepare, for the possibilities of war. Until we thus prepare we can make up our minds that we are ourselves responsible for any disaster that occurs to any army that the United States may raise in the future, not the man who may be at the head of the army at the time. That is utterly unjust; and the people themselves and the representatives of the people in public life who have failed to provide the necessary means in advance—they are responsible when disaster comes. That applies to the Medical Department, and it applies to every other branch of the military establishment just as much.

Third Session—Report on Army Medical Bill.

The council met promptly at 2 p. m. The report on the Army Medical Reorganization Bill was presented by Dr. C. S. Bacon as follows:

The subcommittee on Army Medical Bill recommends to the National Legislative Committee the adoption of the following propositions:

1. The American Medical Association, through its National Legislative Council, reaffirms its support of the bill "to increase the efficiency of the medical department of the United States Army," and desires to express its deep conviction of the importance of this bill for the welfare of the Army of the United States.

2. It desires to express its appreciation of the interest shown in the advocacy of this measure by President Roosevelt, ex-Secretary of War Root, Secretary of War Taft and Surgeon-General O'Reilly, and its thanks to the Senate for the passage of the bill in the fifty-eighth session of Congress.

3. It recommends to the National Legislative Committee that further work with the congressmen be left to the discretion of the legislative committee.

4. It recommends the adoption of the following address to the Committee on Military Affairs of the House of Representatives:

There is widespread interest in the bill "To Increase the Efficiency of the Medical Department of the United States Army." Many medical societies from all parts of the country have taken the initiative in recommending action similar to that proposed by the bill, while the unanimous endorsement of the action of the Legislative Committee of the American Medical Association by the representatives of the profession in nearly all the counties of the United States shows that the physicians of the entire country believe that the measure is important and necessary.

Many of our physicians are more or less familiar with the objects and provisions of the bill, and so far as we know there has been a unanimous approval of its chief features, namely, the elimination of contract surgeons from the Army, the establishment of a Medical Reserve Corps and the increase in rank of the medical officers to encourage young physicians to enter the service of the Army.

Whether the bill drawn up two years ago by Surgeon-General O'Reilly is the best possible bill in all details we do not feel competent to judge, but his masterly presentation of the reasons for its various features in the memoranda which accompany the former bill inspires us with confidence that he understands the subject and knows what is wanted better than anyone else. The only criticism that we have heard among medical men is that the bill is too modest in its requirements and that a thoroughly efficient service may require a larger force than is provided for. In particular the Medical Reserve Corps should be fostered with much care, and we hope that if any changes are made by the committee they will be in the line of increasing the efficiency of this corps.

Now why is there such a deep and general interest among physicians in this bill? This question would be a useless one if the committee of congress which is considering the measure was composed of physicians. As there are no members of the medical profession on the committee, however, it is probable that the point of view of the physicians is somewhat foreign to the committee and some consideration of this subject may be necessary to correct erroneous ideas concerning the forces that may have influenced us.

The medical profession feels itself the natural protector of the health of the state. One important function of medicine has always been to prevent disease. In recent years this function has come to be more important than any other. The greatly increased interest in reports of boards of health and in vital statistics which show the causes of epidemics and of all other causes of sickness and death demonstrates the growing importance of sanitary medicine. Necessary provision to guard against unhealthy conditions and epidemics of disease are obligatory and failure in foresight and sanitary measures are medical crimes. An epidemic of smallpox or typhoid fever in a city is a disgrace to the board of health of the city, and is shared by the whole medical profession of such a municipality. The public respect for the medical profession should fall if its public spirit and interest in the health of the community does not keep it awake to all sanitary problems and make it earnest and efficient in combating public danger.

In support of this proposition the history of the action of the medical profession in a number of communities could be cited. Unfortunately lack of organization of the profession in the past has often made it impossible for it to exercise that influence that by right belongs to it. The recent remarkable growth of organization in the medical profession in the United States has led it to feel its responsibility much more deeply.

This inherent interest in public health caused the profession to be most deeply moved and humiliated by the events of the Spanish war. The terrible epidemics of typhoid, quite unnecessary and avoidable, now when we know the cause of the disease and its modes of propagation, that led to the sacrifice of many lives and to the uncountable waste of illness and chronic ill-health, made a deep impression on the physicians of the country.

All knew that there had been some great mistake that was responsible for these epidemics and one which should be discovered and remedied when found. When the Dodge Commission, appointed by President McKinley reported that one of the principal defects under which the medical department labored was a lack of trained surgeons of the regular medical corps and recommended an increase in their number, attention was called to the fundamental need of a medical department of an army, viz., men trained in army sanitation and administrative detail. Civilian physicians, no matter how skilled in their own special field of work, can not at once take charge of the medical supervision of an army.

All know the proper selection and sanitary preparation of camp grounds with proper disposal of sewage and the prevention of infection of drinking water and food, as well as keeping track of patients by means of a system of records, are matters that require much preparation. Military medical practice is, indeed, a specialty, as much as any other medical specialty and a military specialist can not be created in a day or a month, any more than a great abdominal surgeon can be made in that time. In the emergency of war these specialists are of inestimable value.

When in the reorganization of the Army in 1901 the recommendation of the Dodge Commission was ignored, when the suggestions of the then Surgeon-General Sternberg were dismissed without a hearing and the Medical Department not only not increased but greatly reduced in efficiency, those who kept informed of the situation became very indignant at this slight placed on the medical profession. As the knowledge of the situation has gradually been disseminated during the last four years and as the condition of the Army in respect to sanitation has been brought into comparison with that of the Japanese Army, the indignation has grown. If this condition is not remedied now after the need for it has been set forth so often by the General Staff of the Army, by the Secretary of War, the President of the United States and after it has been shown without contradiction that the united medical profession of the country favor such action it seems likely that the interest of the physicians of the country will grow until they will want to know why their views on so important a subject should not receive consideration.

Those who oppose the bill make a variety of objections. Some of these are irrelevant: for example, it is said that the Army is already top-heavy, with the officers numbering one-sixteenth of the Army, as if too large a number of officers in other departments, if such an excess exists, was a reason for objecting to a proper number in the Medical Department. Also irrelevant is the petulant assertion that every Army Bill is simply one to increase the rank and pay of the officers. Aside from these there are about five objections that should be considered.

1. No change in the present law is necessary. The condition of the health of the Army is good, as shown by the annual report of the Secretary of War. Should war break out, the civilian physicians must be called in under any circumstances. Answer: 165 contract surgeons are now employed. They have no certain authority even over the hospital corps. They are being constantly changed, they are not trained in their work, and much loss occurs, because of their lack of training in this respect. In time of war a corps of trained men is absolutely necessary properly to care for the sanitation of the Army.

2. The increase in the number of officers in the higher ranks is not necessary. Answer: The best quality of men can not be secured without adequate compensation. In the Army both rank and pay are regarded as compensations. The pay is not large enough to make up for a lower rank. The pay, indeed, is determined by the rank. The restricting of the number of the higher prizes in the medical department as compared with those in other departments of the Army is unjust to the medical officers, as it is unjust to the medical profession.

3. The proposition to promote lieutenants in three years is not desirable. Answer: This is a detail best understood by the Surgeon-General, but in a general way the same answer can be given as to objection 2, namely, it is necessary as an inducement to obtain a medical corps of the proper quality and standing.

4. The plan of the reserve corps is not practicable, nor well thought out. Answer: What better plan can be proposed? Certainly not the contract system now in vogue, which every one condemns. The plan proposed is elastic and leaves much to development, and that is its good feature. It will probably and certainly lead to the organization of a fine body of men, who will keep informed of the essentials of the Army practice and who, through voluntary association will have a great influence in the improvement of the service. The Reserve Corps will not necessarily interfere with the medical corps of the national militia, but it will probably have an important influence in developing and molding such a system as will be of mutual benefit to the national guard and to any emergency army of the United States.

5. The country is now spending more than it takes in. Under these conditions we can not increase the expense. Answer: The increase in expense will be but slight, because the change from the contract surgeon system will be a considerable saving. The change contemplated will require four years, and as the new members of the staff must spend some months in the Army Medical School, there will be practically no increase during the first year. When the change is completed in four years, the deficiency in income should have disappeared. The cost is truly very little, for the great saving it will secure in life and health.

C. S. BACON, Chairman.
S. BAILEY,
G. K. PURVIS.

Report on the Pure Food and Drug Bill.

The report of the Committee on Pure Food and Drug Bill was presented by Dr. A. S. von Mansfelde, chairman of the committee, as follows:

Your committee appointed to consider legislation for honest foods and pure drugs begs leave to report that it has considered the suggestions of the chairman and has examined in detail the provisions of the Heyburn and Hepburn bills and finds nothing in these bills which, in the opinion of the members of the committee, would injuriously affect any legitimate business concerned in the manufacture and sale of foods, liquors or drugs, and that the bill would afford adequate protection to honest manufacturers of and dealers in such products and security against imposition, fraud or danger to the buyer.

Finally, your committee respectfully recommends that this legislative council lend its influence to the passage of the Hepburn and Heyburn bills and ask the profession at large to second the endeavor.

A. S. VON MANSFELDE, Chairman.
SILAS B. PRESBREY,
JOHN S. FULTON.

Dr. von Mansfelde, chairman of the committee, submitted the further recommendation that, in submitting the report of the council relative to the pure food and drug bill, to the committee of Congress, said report be accompanied by the section of the address by the chairman, Dr. Reed, relating to this subject.

Dr. H. W. Wiley, chief of the bureau of chemistry, Department of Agriculture, was on motion invited to address the council on the general subject of pure food and drug legislation. At the conclusion of his remarks the report of the committee was unanimously adopted.

Report on Department of Public Health.

The Committee on Department of Public Health submitted its report in the form of a preamble and resolution as follows:

WHEREAS, The medical profession, at the Portland Session of the American Medical Association, had good reason for endorsing the excellent work done by the Public Health and Marine-Hospital Service during the preceding ten years, has now better reason for asking for an amplification of its powers in view of the valuable services rendered commerce and the most vital interests of this country during the recent epidemic of yellow fever in the south and realizing that the national public health service should be placed on an independent basis. Therefore be it

Resolved, That it is the sense of the American Medical Association that a Department of Public Health, with representation in the cabinet of the President ought to be established, such department to embrace an expansion of the present Public Health and Marine-Hospital Service, with the addition of other public health agencies now existing and in operation in other departments of the government, together with such additional agencies and functions as may best subserve the public welfare.

Resolved, That the National Committee on Legislation be and is hereby instructed to proceed at once with the preparation of a bill for this purpose to be presented to Congress at the earliest practicable date, if possible during the present session.

Resolved, That the Trustees of the Association be and are hereby requested to appropriate one thousand dollars ($1,000.00), or so much of the same as may be required to defray the expenses of the Committee on Legislation in employing a competent constitutional lawyer to draft a bill for a department of public health contemplated by these proceedings.

J. T. WILSON, Chairman.
C. Z. AUDE,
G. E. SEAMAN.

This report was adopted.

Anti-Nostrum Crusade Supported.

The chairman, Dr. Reed, called the attention of the council to the fact that the agitation long carried on by the medical profession against patent and secret proprietary medicines, had at last been taken up by two powerful periodicals, namely, the *Ladies' Home Journal* and *Collier's Weekly*, with the result that popular interest had been aroused as never before in this important subject. He felt, therefore, that it was due not only to these periodicals, but to the general public, that the co-operation of the medical profession should be made active and effective along the lines which, now that popular co-operation had been reasonably secured, promised something definite in the way of results. A letter from Mr. Edward Bok relating to this subject was then read, after which the chairman said that he would take the liberty of offering from the chair the following preamble and resolutions, which were adopted:

WHEREAS, The American Medical Association has long maintained the position that all proprietary remedies purveyed to and dispensed by the medical profession, to be entitled to confidence, must carry their respective formulæ in all advertising matter, and,

WHEREAS, The same principle applies with even greater force in respect of drugs and medicines sold directly to the general public, therefore be it

Resolved, That the Committee on Legislation of the American Medical Association be and is hereby directed to bring the influence of the entire medical profession to bear in securing the enactment by the various state legislatures, of an act as nearly as possible uniform prescribing that all "patent" or "proprietary" medicines shall carry an exact formula of their contents plainly printed on each original package and make the contents conform to the formula.

Resolved, That the said committee memorialize Congress to enact a law which shall prescribe that all "patent" or "proprietary" medicines and all advertising matter relating to the same which shall fail to comply with the foregoing conditions shall be excluded from the United States mails and from interstate commerce.

Resolved, That the Committee on Legislation be and is hereby requested to take such other steps as it may deem necessary and expedient to limit the evil results arising from the consumption of drugs and remedies the contents of which are unknown.

Report of Committee on National Incorporation.

The committee to whom were referred the recommendations of the chairman of the Legislative Council concerning the question of national incorporation of the American Medical Association beg to report that they approve of these recommendations.

It seems to be practically certain, in view of the unsuccessful efforts of the special committee of the association to secure a truly national charter and of the weight of legal opinion, that the only form of charter which can be secured from Congress would be a District of Columbia charter, which would be no more national in character than the existing Illinois charter, and would offer no advantages over the latter; indeed, would be less beneficial, inasmuch as the property interests of the association are now located in the state granting the charter.

The committee, therefore, recommend that the Legislative Council advise the Legislative Committee to refer the question of a national charter back to the House of Delegates, with a statement which shall make clear the impracticability of securing a charter of a truly national character or any congressional charter which will be more advantageous to the association than a charter from the state where the property interests of the association are located.

WILLIAM H. WELCH, Chairman.
JOHN S. FULTON.

The report of the committee was unanimously adopted.

Report on Regulation of the Practice of Medicine at Hot Springs, Arkansas.

The committee to which was referred the consideration of the situation at Hot Springs, Ark., as respects the regulation of the practice of medicine, respectfully reports that the conditions existing are as follows:

Two jurisdictions exist side by side, one that of the general government over the grounds occupied by the springs, called the Reservation; the other that of the State of Arkansas over the surrounding territory, occupied by the municipality of Hot Springs.

The State of Arkansas has enacted a law regulating the practice of medicine in the state, which law, of course, applies to the city of Hot Springs. The United States Congress has authorized the Secretary of the Interior to establish rules regulating the privilege of using the waters, both of which are intended to prevent illegal practitioners of medicine from pursuing their vocation. The law of the state and the rules established by the Secretary of the Interior have both been assailed in the courts, the cases are now pending, decisions will sooner or later be reached in both cases, and in the event of the law of the state and the rules promulgated by the Secretary of the Interior being upheld all legislation necessary to suppress the evil will have been achieved.

The committee, therefore, recommends that the medical profession of the United States use its influence to uphold both the law and rules, and also recommends that a vote of thanks be extended to Secretary Hitchcock for the wise and vigorous position he has maintained in regard to this matter.

W. H. SANDERS, Chairman.
C. TRAVIS DRENNEN,
O. B. MAYER.

This report was adopted.

Report on Bill for the Relief of Mrs. William A. Hammond.

Your committee has carefully considered this bill (Senate 290), introduced by Mr. Elkins, entitled "A Bill to Amend the Act Approved March 15, 1878, entitled 'An Act for the Relief of William A. Hammond, late Surgeon-General of the Army,'" and recommends its approval by Congress.

JOHN S. FULTON, Chairman.
GEORGE N. ACKER.

This report was also adopted.

Report on Bill to Restore the Canteen in the Army.

Your committee finds that the bill to restore the canteen in the army occurs as a House measure (H. R. 8433), introduced by Mr. Morrell, entitled "A Bill to Repeal Section Thirty-eight of 'An Act Entitled an Act to Increase the Efficiency of the Permanent Military Establishment of the United States,' Approved Feb. 2, 1901, and for Other Purposes," is in the following language:

WHEREAS, The Secretary of War has submitted a report on the operation of this law, which shows that its effect has been to increase drunkenness, disease, insubordination, and desertion, moral and physical degeneration; and

WHEREAS, Other reports of the War Department show that all of the generals in the service except two, all of the ten colonels of the cavalry, all of the seven colonels of the artillery, all of the forty-nine colonels of the infantry save one, and five hundred and four out of five hundred and sixteen commanding officers of companies, batteries and troops, for one reason or another, are opposed to the law; and

WHEREAS, The testimony of 90 per centum of those who in command of posts have expressed a positive opinion is that the law has increased drunkenness, desertion, absence without leave, and trials by court martial; ninety-five per centum saying that the condition of health has deteriorated, and all agreeing that morality and discipline have been injuriously affected; and

WHEREAS, The present Chief of Staff, in his report for this year just published, calls attention to the reports of the division and department commanders, nearly all of whom agree as to the bad results which have followed the passage of the law: Now, therefore,

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section thirty-eight of an Act entitled "An Act to increase the efficiency of the permanent military establishment of the United States," approved Feb. 2, 1901, be, and the same is hereby repealed.

SEC. 2. That this Act shall take effect from and after its passage.

For the reasons set forth in the preamble to the foregoing bill, the bill itself is recommended for passage.

JOHN S. FULTON, Chairman.
GEORGE N. ACKER.

This report was also adopted.

Report on Government Recognition of the Services of Dr. James Carroll.

Dr. John S. Fulton, of Maryland, introduced the following:

WHEREAS, In the year of our Lord nineteen hundred, a Yellow Fever Commission was appointed by the Army of the United States to investigate the causes of yellow fever and to devise means for its eradication, the said Yellow Fever Commission consisting of Dr. Walter Reed, surgeon in the Army of the United States, Dr. James Carroll, Dr. Jesse Lazear and Dr. Aristides Agramonte, acting assistant surgeons in the Army of the United States; and

WHEREAS, The said Yellow Fever Commission, consisting of Dr. Walter Reed, Dr. James Carroll and Dr. Aristides Agramonte (Dr. Jesse Lazear, deceased), did then and there determine the cause of yellow fever, and devise means for its prevention, by which means yellow fever was eradicated from Havana and Cuba, and thousands of lives have been saved in the United States and other parts of the Western Hemisphere; and

WHEREAS, Dr. Jesse Lazear, an acting assistant surgeon in the Army of the United States, did subject himself to the bite of an infected mosquito, from which bite Dr. Jesse Lazear suffered death; and

WHEREAS, Dr. James Carroll, an assistant surgeon in the Army of the United States, did subject himself to the bite of a mosquito infected with yellow fever, and suffered a grave and almost fatal attack of yellow fever, being the first attack ever experimentally produced: be it

Resolved, That the National Legislative Council of the American Medical Association expresses its appreciation of the valuable work accomplished by the Yellow Fever Commission in the interest of humanity, the material and bodily welfare of the people and of the Army of the United States, and of the heroism and devotion of the aforesaid Major Walter Reed (deceased), Dr. James Carroll, Dr. Aristides Agramonte and Dr. Jesse Lazear (deceased); and be it further

Resolved, That this Council commend to the Government of the United States adequate recognition of the gallant and meritorious services of the said Dr. James Carroll, the only surviving member in the Army of the United States of the said Yellow Fever Commission.

This report was unanimously adopted by a standing vote.

Report on Government Regulation of Indigent Consumptives.

Dr. J. T. Wilson of Texas presented the following preamble and resolutions, which were adopted:

WHEREAS, The wandering indigent consumptives who seek relief from change of climate, go from state to state, without friends and without means become a burden, filling poor-houses, hospitals, and cheap boarding-houses, but of greatest interest by being a menace to public health in scattering the germs of tuberculosis wherever they go: therefore be it

Resolved, That the Committee on National Legislation take the matter under advisement looking to the passage of a law by which these people should be placed under national control for the protection of the public.

Resolved, That this committee take further action in an effort to have the government establish institutions for the care and treatment of indigent consumptives and thus subserve a great humanitarian purpose.

Fourth Session—Visits to Government Officers.

The council met at the capital at 10 a. m., Thursday, January 11, and waited in a body on Hon. W. B. Heyburn, United States Senator from Idaho, to whom they expressed their high appreciation of his services in endeavoring to secure pure food and drug legislation for the country.

At 10:30 a. m. the council appeared before the House Committee on Military Affairs, consisting of:

REPUBLICANS.

1.	Hull, John A. T., Chairman	7th District, Des Moines, Iowa.
2.	Ketcham, John H.	21st District, Dover Plains, N. Y.
3.	Parker, R. W.	7th District, Newark, N. J.
4.	Capron, A. B.	2d District, Stillwater, R. I.
5.	Prince, G. W.	15th District, Galesburg, Ill.
6.	Holliday, E. S.	5th District, Brazil, Ind.
7.	Young, H. O.	12th District, Ishpeming, Mich.
8.	Patterson, G. R.	12th District, Ashland, Pa.
9.	*Kahn, Julius	4th District, San Francisco, Cal.
10.	*Fletcher, Loren	5th District, Minneapolis, Minn.
11.	*Dawes, B. G.	15th District, Marietta, Ohio.
12.	*Miller, James M.	4th District, Council Grove, Kan.
	McGuire, B. S.	Oklahoma Territory.

DEMOCRATS.

13.	Sulzer, William	10th District, New York, N. Y.
14.	Hay, James	7th District, Madison, Va.
15.	Slayden, James L.	14th District, San Antonio, Texas.
16.	Broussard, R. F.	3rd District, New Iberia, La.
17.	*Talbott, J. F. C.	2d District, Towson, Md.
18.	*Wiley, A. A.	2d District, Montgomery, Ala.

* New members of the committee.

The chairman, Dr. Reed, explained the mechanism by which the medical profession of the United States arrives at a consensus on public questions, and presented its verbal but unanimous petition for the passage of the Army Medical Reorganization Bill then before the House.

Dr. C. S. Bacon (Illinois) presented the formal report of the National Legislative Council.

Remarks were made by Drs. William H. Welch (Maryland), A. S. von Mansfelde (Nebraska), and G. E. Seaman (Wisconsin). After numerous questions had been asked by the members of the committee and answered by members of the council, the latter withdrew.

Visits of courtesy to the Secretary of Agriculture, Mr. Wilson, and to the Secretary of the Interior, Mr. Hitchcock, closed the session.

C. S. BACON, Secretary.

Approved.

CHARLES A. L. REED, Chairman.

State Boards of Registration

COMING EXAMINATIONS.

NEW YORK State Boards of Medical Examiners, Albany, January 30-February 2. Secretary, Charles F. Wheelock, Albany.

NEBRASKA State Board of Health, State House, Lincoln, February, 7-8. Secretary, George H. Brash, Beatrice.

Personal.—Dr. E. L. Godfrey of Camden, Secretary of the State Board of Medical Examiners, who was granted leave of absence recently, has had an attack of appendicitis, but has been operated on successfully.

Reorganization of the Wisconsin Board.—Dr. A. P. Andrus was elected president, and Dr. J. V. Stevens, secretary, of the Board of Medical Examiners, taking the places of Dr. J. R. Currens and Dr. Filip Forsbeck, the retiring president and secretary. Two new members have been appointed on the board. Dr. P. H. McGovern and Dr. M. A. Barndt, both of Milwaukee.

Wisconsin's New Law.—Dr. J. V. Stevens, secretary of the Wisconsin State Board of Medical Examiners, sends us a copy of the law recently enacted by the legislature of Wisconsin. It is given entire as follows:

A bill empowering and requiring the Wisconsin State Board of Medical Examiners to refuse to grant licenses or certificates of registration to persons guilty of immoral, dishonorable or unprofessional conduct, and empowering the courts to revoke and annul any license or certificate issued to any person guilty of immoral, dishonorable or unprofessional conduct, or fraud or perjury in connection with obtaining such license or certificate, or through error.

SECTION 1. It is hereby made the duty of the Wisconsin State Board of Medical Examiners to refuse to license or grant a certificate of registration to any person guilty of immoral, dishonorable or unprofessional conduct. The circuit courts of this state are hereby vested with jurisdiction and power to revoke and annul any license or certificate of registration which has been heretofore or which may be hereafter issued to any person to practice medicine or surgery, or osteopathy in this state, who is guilty of immoral, dishonorable or unprofessional conduct, or who has procured such license or certificate of registration by fraud or perjury, or where the same was obtained through error. On a verified complaint in writing being made by any person, to the district attorney of any county, charging any person holding such license or certificate with having, in said county, been guilty of any immoral, dishonorable or unprofessional conduct, as defined in this act, or with having procured such certificate or license by fraud or perjury, or through error, said district attorney shall commence and prosecute an action in the circuit court of said county, against the person so complained against, to revoke and annul such license or certificate of such person. Such action shall be commenced and prosecuted as a civil action in the name of the state of Wisconsin as plaintiff, and against such person complained against as defendant, and the rules of pleading, evidence and practice in civil actions in the circuit court shall be applicable thereto, and either party may appeal from the circuit court to the supreme court as in other civil actions. Either party in said action may demand a jury trial, and the defendant shall have the right to be represented by counsel, and the court may permit counsel to assist the district attorney in the prosecution of such action. The costs of such prosecution shall be paid by the county in which said action is brought. If, on the trial of such action, the court finds, or the jury returns a verdict in favor of the plaintiff, judgment shall be rendered revoking and annulling such license and certificate of the defendant, and the clerk of the circuit court shall forthwith cause a certified copy of such judgment to be sent to the Secretary of the Wisconsin State Board of Medical Examiners to be filed for record in the office of said Secretary. Any person whose license or certificate has been revoked under the provisions of this act, who shall thereafter practice, or offer or attempt to practice medicine, surgery or osteopathy in this state, shall be punished as provided in Chapter 426 of the Laws of 1903. No person shall be excused or privileged from testifying fully under oath or producing evidence documentary or otherwise, in any action, proceeding or examination brought under the provisions of this act; but no person shall be prosecuted or subjected to any penalty for or on account of any transaction, matter or thing, concerning which such person may so testify or produce evidence, documentary or otherwise, except for perjury committed in giving such testimony. If the court before which the trial is had shall determine that the complaint made to the district attorney was wilful and malicious and without probable cause, it shall enter judgment against the person making such complaint for the costs of such action, and payment of the same may be enforced by execution against the body of such complainant as in tort actions.

SEC. 2. The words "immoral, dishonorable or unprofessional conduct" as used in Section 1 of this act are hereby declared to mean: First, procuring, aiding or abetting a criminal abortion; second, advertising, either in his own name or in the name of another person, firm, association or corporation, in any newspaper, pamphlet or other written or printed paper or document, in any obscene manner or in a manner derogatory to good morals, the curing of venereal diseases, the restoration of "lost manhood," or the advertising of any medicine or any means whereby the monthly periods of women can be regulated or the menses re-established, if suppressed, or being employed by or in the servic of any person, firm, association or corporation so advertising; third, the obtaining of any fee on the assurance that a manifestly incurable disease can be permanently cured; fourth, wilfully betraying a professional secret; fifth, indulging in the drug habit; sixth, conviction of any offense involving moral turpitude.

SEC. 3. This act shall take effect and be in force from and after its passage and publication.

The Public Service

Army Changes.

Memorandum of changes of stations and duties of medical officers, U. S. Army, week ending January 13, 1906:

Allen, John H., asst.-surgeon, granted twenty days leave of absence.

Kilbourne, E. D., asst.-surgeon, left Army General Hospital, Presidio, of San Francisco, Cal., on thirty days' leave of absence.

Huntington, P. H., asst.-surgeon, ordered, on arrival at San Francisco, Cal., to proceed at once to Fort Rosecrans, Cal., for station.

Barney, Charles N., asst.-surgeon, reports for treatment at General Hospital, Fort Bayard, N. M.

Tuttle, George H., contract surgeon, relieved from duty in the Philippines Division, and ordered to sail February 15 from Manila, P. I., for San Francisco, Cal., there to receive further orders.

Waddell, Ralph W., dental surgeon, left Fort Mackenzie, Wyo., for duty at Fort Washakie, Wyo.

Mason, George L., dental surgeon, left Fort Fremont, S. C., and arrived at Fort Moultrie, S. C., for duty.

Whinnery, Jean C., dental surgeon, returned to Vancouver Barracks, Wash., from leave of absence.

Wolven, F. Homer, dental surgeon, returned to Fort McKinley, Maine, from leave of absence.

Carpenter, Alden, dental surgeon, left Vancouver Barracks, Wash., on leave of absence for one month.

Reitz, Hugo C., dental surgeon, left Fort Sheridan, Ill., on leave of absence for twelve days.

Newlove, George, contract surgeon, leave of absence extended fifteen days; at expiration of leave, proceed to New York City for duty as surgeon of the transport *McClellan* on its next voyage to Manila, P. I.

Kennedy, James S., contract surgeon, returned to Fort Omaha, Neb., from leave of absence.

Lowe, Thomas S., contract surgeon, sailed from San Francisco, Cal., for Manila, P. I., on the transport *Thomas*, after leave of absence in the United States.

Byars, Caspar R., contract surgeon, returned from Fort McIntosh, Texas, to his proper station, Fort Sam Houston, Tex.

Macy, Fred S., contract surgeon, ordered to accompany B, 9th Infantry, from Allegheny Arsenal, Pa., to Fort Porter, N. Y.; to accompany the 1st Infantry thence to New York City, and there report for further orders.

Dickenson, Clarence F., contract surgeon, relieved at Fort Logan, Colo., and directed to accompany the 2d Infantry to Philippine service.

Navy Changes.

Changes in the Medical Corps, U. S. Navy, for the week ending January 13:

Leach, P., surgeon, detached from the *Massachusetts*, when placed out of commission, and ordered to the *Indiana*.

Angwin, W. A., asst.-surgeon, detached from the *Massachusetts* when placed out of commission, and ordered to the *Indiana*.

Schetky, L. O., pharmacist, ordered to the Naval Hospital, Norfolk, Va.

Blackburn, T. C., acting asst.-surgeon, detached from the *Franklin*, ordered home, and granted leave until expiration of appointment as acting assistant surgeon, January 23.

Curtis, E. E., acting asst.-surgeon, ordered to the *Franklin*.

McMurdo, P. F., acting asst.-surgeon, detached from the *Franklin*, ordered home, and granted leave until expiration of appointment as acting assistant surgeon, January 23.

Miller, J. T., acting asst.-surgeon, ordered to the *Franklin*, January 15.

Public Health and Marine-Hospital Service.

List of changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service for the seven days ending January 10:

Wasdin, Eugene, surgeon, leave of absence granted for one month from Dec. 15, 1905, amended so as to be effective from Dec. 17, 1905.

Carrington, P. M., surgeon, directed to proceed to El Paso, Tex., for special temporary duty.

Nydegger, J. A., P. A. surgeon, granted leave of absence for one day, January 2.

Sprague, E. K., P. A. surgeon, relieved from duty at Ellis Island, N. Y., and directed to proceed to Cape Fear Quarantine Station and assume command of the service.

Goldberger, Joseph, P. A. Surgeon, relieved from special temporary duty at New Orleans, and directed to rejoin his station in Washington.

Earle, B. H., P. A. surgeon, granted leave of absence for four months from February 4.

Ebersole, R. E., asst.-surgeon, relieved from duty at Tampa Bay Quarantine, and directed to proceed to San Francisco, Cal., and report to the medical officer in command for duty and assignment to quarters.

McKeon, F. H., asst.-surgeon, relieved from duty at New Orleans, La., and directed to proceed to San Francisco Quarantine Station, reporting to the medical officer in command for duty and assignment to quarters.

Spratt, R. D., asst.-surgeon, relieved from duty at Louisville, Ky., and from temporary duty at Gulf Quarantine Station, Miss., and directed to proceed to Mobile, Ala., assuming temporary charge of the service at that port.

Guthrie, M. C., asst.-surgeon, relieved from duty at Cape Fear Quarantine Station, and directed to proceed to New York and report to Surgeon Stoner, Ellis Island, N. Y., for duty.

Bean, L. C., acting asst.-surgeon, granted leave of absence for two days from January 8.

BOARDS CONVENED.

Board convened to meet at Boston, Mass., for the physical examination of an Inspector in the Immigration Service. Detail for

the board: Surgeon R. M. Woodward, chairman; Acting Asst.-Surgeon F. H. Cleaves, recorder.

Board convened to meet in Philadelphia, Pa., Jan. 9, 1906, for the physical examination of an officer of the Revenue Cutter Service. Detail for the board: Surgeon F. Irwin, chairman; Assistant Surgeon H. McG. Robertson, recorder.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended, January 12:

SMALLPOX—UNITED STATES.

District of Columbia: Washington, Dec. 31-Jan. 6, 4 cases.
Florida: Jacksonville, Dec. 31-Jan. 6, 6 cases; Mayo, 3 cases; Newberry, 2 cases.
Louisiana: New Orleans, Dec. 31-Jan. 6, 2 cases.
Maryland: Baltimore, Dec. 31-Jan. 6, 6 cases.
Missouri: St. Louis, Dec. 24-Jan. 6, 2 cases.
Virginia: Norfolk, Jan. 3, 45 cases (5 in city and 40 on Craney Island).
Wisconsin: Appleton, Dec. 31-Jan. 6, 3 cases.

SMALLPOX—FOREIGN.

Brazil: Bahia, Nov. 25-Dec. 9, 39 cases, 1 death; Rio de Janeiro, Nov. 20-Dec. 3, 15 cases, 11 deaths.
Ecuador: Guayaquil, Dec. 3-10, 2 deaths.
France: Paris, Dec. 16-23, 19 cases, 1 death.
India: Calcutta, Nov. 25-Dec. 3, 6 deaths; Karachi, Dec. 3-10, 1 case; Madras, Dec. 2-8, 3 deaths.
Italy: Messina, Dec. 9-16, 1 case.
Mexico: City of Mexico, Dec. 8-16, 4 cases, 2 deaths; Tuxpam, Dec. 26-Jan. 2, 2 deaths.
Russia: Odessa, Nov. 11-18, 19 cases, 1 death.
Turkey: Constantinople, Dec. 3-10, 3 deaths.

YELLOW FEVER—FOREIGN.

Brazil: Rio de Janeiro, Nov. 20-Dec. 3, 4 cases, 2 deaths: Sao Paulo, Nov. 5-12, 1 death.
Columbia: Barranquilla, Nov. 27-Dec. 4, 6 cases, 4 deaths; Cartagena, Dec. 16-23, 1 case, 1 death.
Cuba: Habana, Jan. 1-4, 1 case, 1 death.
Ecuador: Guayaquil, Dec. 3-10, 4 cases.
Mexico: Merida, Dec. 24-30, 2 cases; Vera Cruz, 1 case, 1 death.

CHOLERA—FOREIGN.

India: Bombay, Dec. 5-12, 1 death; Calcutta, Nov. 25-Dec. 2, 162 deaths.

PLAGUE—FOREIGN.

Brazil: Rio de Janeiro, Nov. 20-Dec. 3, 43 cases, 18 deaths.
India: General, Nov. 4-11, 3,611 cases, 2,760 deaths; Bombay, Dec. 5-12, 15 deaths; Calcutta, Nov. 25-Dec. 2, 20 deaths; Karachi, Dec. 3-10, 5 cases, 5 deaths.
Russia: Government of Astrakhan, Nov. 19-Dec. 3, 680 cases, 651 deaths.

Medical Organization

What Can the County Society Do?

IV. CLINICAL MEETINGS.

Wherever they have been thoroughly tried, clinical meetings, as contrasted with meetings given over to the reading and discussion of essays, have proved both popular and instructive. Members will come out to see interesting cases when too tired to feel interested in any one's paper. Cases are always interesting, no matter how commonplace they seem, if they are well worked up and briefly and concisely presented. The methods of physical diagnosis are in this way tried and perfected, and the relative merits of different modes of treatment are discussed. If the county has a hospital an occasional meeting should be held in it and the cases used for study and demonstration.

V. BUSINESS MEETING.

If the society meets weekly or bi-monthly, there may profitably be one or two meetings a year given over to "business." This would include consideration of fees and collections, of drug-store prescribing and substitution, expert testimony in court, consultations, contract practice, legislation, quackery, the hospital and dispensary evil, and, not least, methods of advancing the members and prestige of the organization.

VI. CONSULTATIONS.

Probably no one phase of professional life has given rise to more misunderstanding and bickering than the matter of consultations. Out of this little matter of conduct grew the great schism that some twenty years ago rent the American Medical Association, and only now is the breach at last closed by the reunion in New York. It is a rare village in the union where there is not or has not been a medical quarrel arising in a consultation. In nine cases out of ten the quarrel arose because the patient or his friends either deliberately or unwittingly placed a false construction on some remark of one of the consultants, but the doctors on that account disagreed none the less bitterly. One of the chief objects of a county society is to promote such a feeling of good-fellowship among the physicians that little gossipy misstatements will be smiled away in confident trust of a brother physician's honor. And so it is a wise plan at one or more meetings frankly and squarely to discuss consultations. The text of the discussion can be drawn from Article III of the "Principles of Ethics" of the American Medical Association, and the illustrations from the experience of every member. The discussion should be guided through this thorny subject in such a way as to give each member a clear idea of the best methods to be followed in calling and conducting consultations. The members can agree among themselves as to just what forms shall be adopted as necessary to the local circumstances.

(To be continued.)

Society Proceedings

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Regular Meeting, held Dec. 27, 1905.

The president, DR. JAMES M. ANDERS, in the Chair.

The Nostrum Evil.

DR. ALBERT P. FRANCINE outlined the development of the reform against the nostrum evil which, he said, had reached the high water mark in the action of the American Medical Association in creating a Council on Pharmacy and Chemistry. He said that one hundred million dollars was spent by the public in a year in the purchase of patent medicines, of which forty million goes to the newspapers. Within the past year nine county medical societies have taken action and the crusade has been prosecuted vigorously by two notable lay journals, *Collier's Weekly* and the *Ladies' Home Journal*. He said that the medical journals, with a few gratifying exceptions, are as badly hoodwinked by the so-called ethical concerns as is the lay press by the quack nostrums. He instanced two government agencies as lending themselves to the purposes of the patent medicine venders. The Patent Office issues to them trademark registration without inquiring into the nature of the article thus safeguarded against imitation. The Postoffice Department permits them the use of the mails. He feels that the onus of the responsibility in the widespread use of these nostrums must rest, at least, indirectly with the medical profession.

With reference to the so-called ethical preparations, he said there is technically no difference between the proprietary medicines manufactured for the physicians' use and the patent medicines exploited to the public. In theory they reflect the advance made in pharmaceutical science; in fact, taking the greater number as criteria, they discredit pharmaceutical science. For the solution of the difficulty he made the following suggestions: There should be eliminated from the medical journals all advertisements of proprietary medicines of unknown formula, or those not sanctioned by the Council on Pharmacy and Chemistry of the American Medical Association. Physicians should never, under any circumstances, prescribe these mixtures or give testimonials. Medical schools should give their graduates a wider and more thorough knowledge of compounding and prescribing drugs. United action should be taken by medical organizations in the adoption of resolutions condemning this abuse, and in the appointment of committees to visit lay editors and publishers and urge on them the elimination of these advertisements from their columns. He believes that if the newspapers and lay journals could be brought to see the wrong they are committing by publishing advertisements of nostrums, legislation would become of secondary importance. Pending the awakening of the journalistic conscience, he believes legislation to be the most obvious remedy. State laws should be enacted to supplement the contemplated action of the federal government. He be-

lieves that the campaign of publicity and education should be vigorously carried forward so that the true nature and composition of these nostrums shall become public and common property.

The "Patent Medicine" and Secret Nostrum Evils.

DR. JAMES M. ANDERS read a paper which which will appear in THE JOURNAL.

The Elimination of the Nostrum Traffic, an Evident Duty of American Physicians.

MR. M. I. WILBERT'S paper on the above subject will appear in THE JOURNAL.

DISCUSSION.

DR. S. SOLIS COHEN spoke of the inauguration of the movement against the nostrum evil by the Philadelphia County Medical Society in 1892. These resolutions, Dr. Cohen said, had grown out of an experience of his own with a patient, the proprietor of a very influential newspaper in Philadelphia, who, when spoken to about his advertisements of nostrums, said: "Clean your own house, and then come to me." On further looking into the question, the same character of advertisements were found in several leading medical journals. Reference was made to the great improvement made in this respect in the pages of THE JOURNAL of the American Medical Association, and of the assurance that ultimately the work would be completed.

He thought a distinction should be made between "patent medicines" and "patented medicines," and instanced Lydia Pinkham's preparations as "patent medicines," but not "patented." Antipyrin was, but is no longer, a patented preparation, because the patent has expired. Antipyrin and phenacetin were mentioned as "patented" remedies which might with propriety be prescribed in suitable cases. "Patent medicines" he designated as purely nostrums, secret preparations advertised to the laity and for which unfounded curative virtues are claimed. The so-called "ethical proprietary" remedies are not ethical, because they are secret. The synthetic remedies are in an entirely different class, being of definite chemical composition which will respond to recognized tests for identity, quality and purity. These, he said, might be called "ethical remedies," but the so-called "ethical proprietaries" form another class. He thought there is a certain definite limited field for the class of proprietary remedies of known and definite composition, which are made up with peculiar pharmaceutical skill; that there is also a very definite place for the synthetic remedies of definite chemical composition subject to definite chemical tests for identity and purity. The patent medicines, however, and the secret remedies advertised to the profession no self-respecting physician can possibly use. He recognizes the power exercised by the money interests of the advertisements and that the principal fight must be with the power exercised over the medical press. If the members of the profession confine their subscriptions and articles to those journals which have perfectly clean columns, all the other medical journals will fall into line. He favors the passage of resolutions approving the stand taken by the president and officers of the American Medical Association, and offering a vote of thanks to the Council on Pharmacy and Chemistry and pledging the support of the society.

DR. ALFRED STENGEL agreed with Dr. Cohen in the idea of withholding subscriptions or articles from journals advertising such nostrums as are excluded from THE JOURNAL of the American Medical Association. He said that due credit should be given to Mr. Bok of the *Ladies' Home Journal* and to Mr. Adams of *Collier's Weekly* for having taken the initiative in this matter. He feels also that the profession should aid in this further exploitation through lay journals. He agreed that there are a certain number of proprietary preparations which owe their value to the efficiency of the chemist or to the method of preparation, and that this method of preparation can be patented, and the remedy will then become an entirely ethical proprietary remedy. The difficulty lies in deciding where the line should be drawn. Before such preparations can become ethical their exact formula should be printed.

Relative to secret remedies, he said there can be no question where the profession should stand; how any one can prescribe for a sick person a remedy, the composition of which he does not know, is incomprehensible. He believes the cause of the extraordinary use of nostrums is largely the delinquency of the medical profession, shown in indifferent study and careless diagnosis; and that a greater respect for the profession of medicine as a scientific calling, a more decided attempt to ascertain the real cause of pathologic conditions, and a greater desire to be candid and honest when conditions are not solved, would insure a greater respect on the part of the public toward the profession and a tendency to accept medical judgment rather than to dose themselves with anything happening to fall under their notice. He felt that every physician in the country, certainly every member of the American Medical Association, should read the publications of the Council on Pharmacy and Chemistry when that Council shall have become operative. He believes that then physicians will give more consideration to the older remedies and not be so ready to take up with the new; also that the public will not be so prompt to use them without sanction from the medical profession.

MR. SAMUEL P. SADTLER thought there should be the effort to distinguish between the relative standing of the so-called newer remedies. The United States Pharmaceutical Committee has approved about 18 or 20 of the newer synthetics, a relatively small percentage of the three or four hundred of the standard synthetics. He said that the Council on Pharmacy and Chemistry has much sifting work to do. Even among the compounds claimed to be definite, investigation has shown one preparation not to be what was designated by the patent, and he hopes that the Council will see fit to make this information public. The medical profession should continue its support of the American Medical Association and make possible the accomplishment of definite results.

DR. J. HENDRIC LLOYD said that one of the obstacles to the proper control of the matter is the apathy of the members of the medical profession. He spoke especially with reference to proprietary medicines in their relation to medical journals and referred to his own experience as editor-in-chief of a medical journal in refusing advertisements of nostrums. He cited an instance of a paper brought to him for publication extolling the virtues of a certain lithia water, said to have been written by a professor in one of the Philadelphia medical colleges and for which the professor had been paid three hundred dollars. Dr. Lloyd thought it needless to state that the paper did not appear in the *Philadelphia Medical Journal*. Dr. Lloyd said that the fight against the nostrum evil should not be the fight of the medical profession alone, because more is involved than the interests of the profession; but as guardians of the people the medical profession owes a duty to the public. In his judgment, an opinion of a medical journal should not be based on the editorial columns. The reader should not be taken in by an editor who is shouting for ethics, but should look at the advertising pages to see whether they contain a lot of quack advertisements.

DR. M. C. THRUSH said it is well known that if the formulæ of the secret nostrums were published they would soon meet their Waterloo, and instanced a certain sulphur bitters advertised to contain no alcohol, when in reality it contains no sulphur and 20 per cent. of alcohol. Physicians should absolutely condemn the sale of such preparations and call the attention of the people to the great harm they are doing.

DR. H. C. WOOD, JR., did not agree with Drs. Cohen and Stengel in placing the fault on the medical profession. The medical profession, he said, as a whole, does not know what these things are; no one but a trained pharmacologist can differentiate between patent medicines, the secret pharmaceutic, the synthetic, and the so-called synthetic preparations. The only way possible for the medical profession to know the truth is to have it set forth in medical journals, and this truth, he said, the medical journals will not publish. From actual personal knowledge of a large number of medical journals, only those published in the interests of medical societies are willing to publish the truth about proprietary remedies. In some respects they can not be blamed, because the existence of the journals depends on the income from these sources. He felt that the most valuable remedy is exposure; that as soon

as the truth is known concerning the ingredients of the nostrums, they will cease to exist. He said the society should cast its influence toward the passage of the bill for the regulation of food and drugs.

DR. A. B. HIRSH thought that if societies would be somewhat heroic and not have for their official organs publications receiving such advertisements much good would be accomplished. He favored the holding of symposiums by the different branches of the County Society, the data of the same to be furnished the Committee on Legislation for further action.

DR. A. B. KIRKPATRICK cited a case showing all the evidences of chloral poisoning, the result of the use of one of the nostrums. He referred to the custom under some governments of having proprietary medicines analyzed by official chemists, the formula, with the correct price, printed and sent to the householders in the municipality. This naturally was a direct blow to the trade. He thought that some such plan in this country would be of advantage.

DR. FRANCINE thought the profession should support the American Medical Association in its work and indorse the work of the lay journals. He favored the appointment of committees to visit the lay editors for further accomplishment.

DR. ANDERS said that the best cure for the evil is continued exposure. This is to be carried on through the lay press in addition to the medical.

MR. WILBERT emphasized the necessity of the medical profession to devote the time to the correction of some of the phases of the fraud which is complicated and far-reaching. "Patent" medicines, he said, are called "patent," because they are not patented. The word "patent" means open, honest, evident, and there is nothing evident, except that the manufacturer is making money. "Ethical" means "honest," and there is nothing honest about a secret proprietary medicine. The greatest danger in regard to synthetic chemicals is the fact that the journals will not print a harmful effect when it is found. Physicians should acquaint themselves with the harmfulness of the various phases of the proprietary nostrum evil, be it called patent medicine, ethical remedies, or synthetic chemicals.

On motion of Dr. A. A. ESHNER, the following resolutions were adopted:

Resolved, That it is undignified and unbecoming for physicians to prescribe medicinal preparations of secret or concealed composition and that the practice of so prescribing them is to be strongly condemned.

Resolved, That the Philadelphia County Medical Society heartily endorses the action of the American Medical Association in establishing a Council on Pharmacy and Chemistry for the purpose of investigating drugs of a non-official character.

BOSTON MEDICAL LIBRARY MEETING.

Regular Meeting, held Jan. 3, 1906.

DR. RICHARD C. CABOT in the Chair.

The Nostrum Evil.

The chairman had sent out to the profession, with the notice of the meeting, an abstract of an article from *Collier's Weekly* and distributed in the hall a partial list of the members of the Proprietary Association of America. In introducing the first speaker, Dr. Frank Billings of Chicago, he took occasion to explain the terms nostrum, patented medicines and patent medicines, proprietary remedies, etc.

DR. BILLINGS explained the relation between the terms "patented" and "copyrighted." One can not patent a mere mixture unless one patents the process by which it is made. Such a patent lasts seventeen years and is not really secret. But a copyright, usually of the name, lasts forever. Phenacetin is an example of the former class. Its patent expires in a few months. The patents protecting acetanilid and antipyrin have already expired. Gray's glycerin tonic is an example of the second class. A nostrum is a secret preparation, and the adjective "secret" is really unnecessary. For the widespread use of nostrums this profession is primarily to blame. There are "millions in it." The doctors are dupes. The majority of physicians do not practice rationally. They make no real diagnosis, but note symptoms and treat them. Each symptom calls for a drug or drugs. Often these must be changed. They must be palatable and the dose indicated. The physician is instructed (?) by the agent who brings him samples and who is either a doctor who has failed in practice or a druggist. Testimonials and explanations of the way in which the potency of the preparation is enhanced by a special method of preparation are believed and the latest sample employed. The nomenclature of nostrums is wonderful and without any semblance of system. Well-recognized drugs are used as a basis for a multitude of these preparations. Thus urotropin is the basis of at least twelve, and acetanilid of an even larger number. Poisons should be indicated on the labels and the exact amount contained indicated. Chronic acetanilid poisoning is a common occurrence in Chicago. Many of these products claimed to be synthetics are really simply mixtures. The acetanilid pulvis compositus of the new pharmacopeia is a mixture too dangerous to use. This heterogeneous nomenclature is bad enough for medical progress, but even worse is the material published in the medical press containing the statements of what the given remedies will do. Examples were quoted from the *New York Medical Record*, *Medical News*, *Philadelphia Medical Journal*, *Boston Medical and Surgical Journal*, *American Medicine*, *British Medical Journal*, and *London Lancet*. Their absurdity was clear in the reading without comment.

THE JOURNAL of the American Medical Association has set an example which others should follow. The editor should be responsible also for the reading material in the advertisements. So far has this abuse progressed that the phrases used might with very little change be transferred *in toto* to the reading notices of such remedies as castoria or Ayer's cherry pectoral in the lay press. The medical press, with its great power for good as an educator, has an equal power for evil. Unfortunately, the editor edits only his part, and the publisher prints what pays him best. The average man believes what he reads.

The patent-medicine evil, then, is due, first, to the credulity, if not the ignorance, of doctors, and second, to the cupidity of proprietors and promotors, and of medical journals. Fifty per cent. of the doctors prescribe them. Mr. James J. Walsh of New York City reports that 70 per cent. of the prescriptions written there contain them. In one large Chicago pharmacy 42 per cent. of the prescriptions filled contained such ingredients and were signed by doctors of high standing. In another pharmacy 50 per cent. were of the same kind, and were sent by family physicians. For example, one prescription called for castoria and syrup of figs, āā, one teasponful every two hours. In Boston one drug store reports that of 14,895 prescriptions received in a year 38 per cent. contained proprietary medicines, and another had 48 per cent. in 12,000. In the country the proportion is even greater.

Modern medicine has shown that specific medicines for diseases are very limited in number. Medicines are mainly palliative or useful for the relief of organs. The doctor must first make a definite diagnosis and then seek to remove the cause. Besides hygiene, diet, etc., the pharmacopeia furnishes an abundance of suitable drugs. A good druggist can fill any prescription desired and at far less expense than the corresponding nostrum. Thus acetanilid costs 30 cents per pound, but is sold in these preparations for 100 times that amount. Students should be better instructed in botany, materia medica and therapeutics. They should know when not to give drugs as well as when to prescribe them.

For the present evil the great remedy is publicity. Medical meetings should not be marked by the presence of great pyramids of proprietary remedies and stacks of literature. Testimonials should be frowned on. Advertising in the medical journals should be guarded; formulæ with the exact amounts should be printed. The well-educated physicians do not wish to use a stock formula, but will adapt the prescriptions which they give to the individual needs of the patient.

Ready-Made Remedies.

DR. FRANK G. WHEATLEY of North Abington, house chairman of the committee on public health, Massachusetts General Court, 1904-1905, said he did not speak as a legislator, though incidentally he believes that both the commonwealth and the profession would be benefited if doctors were willing

more frequently to become members of the legislature. The medical profession is in some degree responsible for the present deplorable condition of affairs and has a certain duty to perform in the warfare against this evil. For practical purposes patented and proprietary medicines are alike. In either case the object is pecuniary gain. The duty of any worker in scientific medicine who discovers a new remedy of value or a new method of combining old remedies is as clear as that of the surgeon who has hit on some new method in operative surgery. To say that anything which has to do with the treatment of the sick should be restricted in this way is to say that the practice of medicine is commercialism pure and simple. The public is injured, physically, morally and financially, by these alleged remedies. While a few of them may be intrinsically valuable, in no single instance are they indispensable to the successful practice of the healing art, and the prescribing of them by the profession is, on the whole, a monumental blunder and works an endless degree of harm. Probably no one would prescribe peruna instead of the officinal spiritus frumenti, but, perhaps, some one might order listerine instead of a solution of boric acid. This robs the patient, for it has been demonstrated that as much antiseptic value can be obtained from a solution of any of the common antiseptics for one cent as from $4.95 worth of listerine. Moreover, the physician by thus prescribing, throws his influence in favor of the whole class. The public is not logical, and jumps to this conclusion. If better results are obtained by using them, it is because the average physician does not know enough about the science and art of prescription writing. This ignorance is one of the parts of a movement which dates back to Bigelow's "The Self Limitation of Disease," and has gone to the brink of therapeutic nihilism. Emphasis is laid on diet and hygiene, and drug treatment is considered of little moment. If this theory were applied to every branch of medical science we could very materially shorten the required courses in medical schools. Our medical students must be impressed with the fact that there are certain definite results which can be obtained by the use of drugs, and that a thorough knowledge of prescription writing is a *sine qua non* for a degree in medicine. Patients have the right to demand a prescription adapted to the individual needs of the case, rather than one ready-made which has to recommend it the dictum of a financially interested manufacturer. Medical schools should produce graduates who can write individual prescriptions. Not long since there was formed in Paris an association for the postgraduate study of drugs, the reason given being that the average French graduate knows little or nothing of the subject.

A second reason for using the ready-made article is that it is easier to order it. True, but it would be easier still and in most cases better to prescribe nothing. The leaders in the profession lessen the validity of their claim by so prescribing and give proof of lack of education, laziness or ape-like imitativeness. Commercialism is back of the whole subject. Any legislation which interferes with the business is sure to encounter tremendous opposition. The fellow-townsmen of Lydia Pinkham, J. C. Ayer & Co., and the residents of other municipalities where the business is carried on, advertising agencies and the drug trade, with some honorable exceptions, join forces with the manufacturers and prevent legislative interference. The time has come when there are no "ethical preparations." We should ignore the whole list. If we will confine our prescribing to articles recognized by the national authority, we shall confer one of the greatest boons on the public and incidentally on ourselves that the annals of medicine record.

DR. DAVID W. CHEEVER said that physicians have two duties, that which they owe to their patients and that which they owe to the public. He must first find out what is the matter and then give not an opinion, but a remedy. This may be advice as to hygiene and sanitation, or it may include drugs, and the physician should know the character, qualities and purity of these drugs. Prescriptions which are made up at the time by a reliable apothecary are likely to be pure and fresh and, therefore, potent. The great danger in all these secret remedies is that the manufacturers either do not state what they contain, or make false statements regarding the composition of these remedies. Drugs especially dangerous in such preparations are opium, chloral, cocain, the coal-tar products, and last but not least, alcohol. If a physician prescribes an unknown remedy and a drug habit results, it is certainly as much his fault as that of the manufacturer.

DR. JAMES C. WHITE said that though in practice fifty years, he had never prescribed a single remedy outside of those contained in the pharmacopeia. The success of nostrums and proprietary medicines lies in the advertising. The daily press, the religious press, literary weeklies, monthlies and quarterlies, and even the medical press, are all at fault. Medical journals should have no nostrum advertisements. A few medical journals adopting this plan would have general support and would not need to depend on advertisements for their pecuniary success. A medical journal with which Dr. White is connected, which has only twenty advertisements, can not pay its way at $4 a year, while a similar journal with seventy advertisements is entirely self-supporting at $1 a year. Agents of proprietary medicines should be kept away from the physician's office. Dr. White would establish in every locality a pharmacy which would agree to have no dealings with proprietary remedies and to supply only pharmaceutical preparations. He believes that at least 50 per cent. of the profession would support such a pharmacy.

DR. MORTON PRINCE believes that if a medical journal would exclude nostrums and appeal to the medical public it would receive support. This would be a duty. Advertisements are put in because the profession does not give the needed support. Dr. Prince referred to the work of *Collier's Weekly* and to the exposure by the *Ladies' Home Journal* of the methods of manufacturers in advertising for correspondence regarding various ailments. These letters, he said, are classified and answered by stock letters. Dr. Prince stated that this is a fraud in that it violates state law by practicing medicine without a license. A patent medicine is not a success unless it is a "repeater." Frequently this means that a drug habit like alcoholism has become established and can be broken off only with great difficulty. Proprietary medicines whose ingredients are known and whose manufacture is conducted by honest business methods may be useful. The evil of those whose ingredients are not known, Dr. Prince said, might be remedied by the publication of their formulæ. For many years he has received no agents at his office, and now no agent goes there to leave samples.

DR. F. C. SHATTUCK spoke of the "Index Medicus." There are no advertisements in that journal. Though only valuable for every library, it was not supported by the profession even when the price was only $5 a year. It was allowed to die and was revived by Mr. Carnegie's money. The medical men are the recipients of his bounty.

DR. JOHN LOVETT MORSE said that we can hardly fail to appreciate the importance of this subject. Physicians realize their indebtedness to the Council on Pharmacy and Chemistry of the American Medical Association. He thinks that physicians ought to realize also how much they owe to the *Ladies' Home Journal* and *Collier's Weekly* for bringing this to the public. These magazines reach the public where doctors do not. Dr. Morse presented the following resolutions:

Resolved, 1. The members of the Suffolk District Section of the Massachusetts Medical Society here present heartily approve of the action of the American Medical Association in establishing the Council on Pharmacy and Chemistry for the purpose of investigating and reporting on non-official drugs and cordially welcome the results of the work already done by that Council.

2. We give our hearty support to the educational campaign now being carried on by *Collier's Weekly*, by the *Ladies' Home Journal* and by THE JOURNAL of the American Medical Association and we warmly commend the action of these journals in exposing the humiliating subserviency of the press, lay and medical, to the mandates of the Proprietary Association of America, and in showing up the fraudulent use of sham testimonials and the loss of life due to the use of the products exploited by members of the Proprietary Association.

3. Copies of these resolutions should be sent to journals mentioned in the foregoing resolutions.

This resolution was unanimously adopted.

DR. CABOT suggested one other remedy, namely: If the 200 or 300 physicians who are contributors of articles to the best of medical journals would refuse to allow their papers to be printed in any journal which admits nostrums to its advertising pages, their influence might be decisive.

WESTERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.

Fifteenth Annual Meeting, held in Kansas City, Mo., Dec. 28-29, 1905.

(*Concluded from page 148.*)

Treatment of Appendicitis.

DR. O. BEVERLY CAMPBELL, St. Joseph, Mo., summarized his paper as follows: 1. In incipient appendicitis, until the patient is placed in the hands of the surgeon, all food and drink should be withheld, and the patient nourished per rectum. 2. Every patient should be advised of the advantages of an early operation. 3. The removal of the appendix, or the closure of an opening in the cecum, should be made, in abscess cases, when it can be done without additional risk to the life of the patient. 4. The practice of merely draining in every abscess case should be condemned as nonsurgical. 5. Operation during a progressive diffuse peritonitis is attended with a higher mortality than the method of procedure recommended by the writer. 6. If the internist will direct his efforts in the treatment of appendicitis toward the protection of the peritoneum until he can transfer his case to the surgeon, the mortality in this disease will be greatly lessened. 7. The adoption of the more rational method of dealing with diffuse peritonitis will convert a large percentage of these cases into circumscribed peritonitis, when they can be rightly classed as large abscess cases, having the same mortality.

Treatment of Appendicitis in Its Various Stages as It Comes to the Surgeon.

DR. C. H. WALLACE, St. Joseph, Mo., summarized his paper as follows: 1. Appendicitis is always a surgical case. 2. Every case should have and is entitled to operative measures within the first forty-eight hours. 3. The rapidly progressing stage is the stage of applicability of the Ochsner treatment, and by it offers the lowest mortality. 4. Cases coming to the surgeon with evidence of gradually subsiding symptoms should be deferred for a more favorable operative period. 5. In every interval or chronic case operation should be urged. 6. Abscess cases should be given two safe rather than one hazardous operation. 7. Diffuse peritonitis should have all accumulated dependent cavities primarily and carefully incised and drained and not flushed, and secondarily the offending organ incised.

Extrauterine Pregnancy.

DR. J. W. ANDREWS, Mankato, Minn., reported having operated on a woman who was ten weeks pregnant; the sac ruptured and the operation was delayed thirty-six hours. The steps of the operation performed were not very different from those of an ordinary laparotomy. He argued in favor of accuracy and rapidity in operating on these cases, and emphasized the necessity in many cases of thrusting the hand down through the pool of blood and securing the blood vessels before attempting to mop out or otherwise remove the blood and blood clots. He thought drainage, as a rule, should be employed after laparotomy for extrauterine pregnancy.

Postclimacteric Hemorrhages; Their Cause and Treatment.

DR. A. L. WRIGHT, Carroll, Iowa, called attention to the frequency of occurrence of postclimacteric hemorrhage after the establishment of the menopause. He spoke of how often it is passed over slightingly, with the thought that it is incident to the woman's age until grave complications are at hand, or the true cause—carcinoma, in most instances—is so far advanced as to place the patient beyond the pale of surgical interference. Dr. Wright called attention to the several changes that take place in the uterus at this time and cause hemorrhage. The trend of his argument was to early recognize the pathologic changes taking place in the uterus, and, if in doubt, remove the organ rather than take chances that will invariably result in death.

Gunshot Injuries of the Stomach.

DR. J. N. WARREN, Sioux City, Iowa, gave the history and analysis of 144 cases of gunshot injury of the stomach. In operated cases the time elapsing from the time of injury and the operation shows that the earlier the operation is performed the more favorable is the result. In complicated cases the number of lesions found and viscera injured add to the gravity of the case. He referred to the results in cases that were not operated. He said the presence of food in the stomach, with the discharge of the same into the abdominal cavity, adds to the danger of general peritonitis, either with or without operation.

Symptoms of Spinal Disease.

DR. S. C. BALDWIN, Salt Lake City, Utah, called attention particularly to the early symptoms of spinal disease, in order that suffering may be earlier relieved and deformity avoided. The general or more common symptoms, and then such symptoms as rigidity, abnormal gait, pain, paralysis, abscess, etc., were considered. The symptoms differ when different regions of the spine are involved. For instance, in the cervical region the first symptom noticed may be pain in the head, or earache. Before there is any sign of deformity the patient may complain of difficulty in swallowing and even in breathing. There may be and often is the grunting respiration. Such general symptoms as weakness, loss of appetite, loss of weight, rigidity and general change of gait are apparent in disease of all parts of the spine. The writer has seen a number of cases of Pott's disease developing in patients over 40 years of age, and two cases which he recalls developed after 50. Weakness may show itself in a general drooping of the trunk, in an unsteady and stumbling gait, and exhaustion requiring rest after the slightest exertion.

Drainage of the Male Pelvis.

DR. WILLIAM JEPSON, Sioux City, Iowa, spoke of the obstacles in the way of instituting such drainage as compared with the female pelvis. He described a method of instituting drainage of the male pelvis and reported the results he obtained in 19 cases. In all of these cases there existed a diffuse pelvic peritonitis, with accumulations of purulent fluid, often elevating the distended bowel high into the abdomen, and in two cases ascending between the mesentery and descending colon and overflowing from the pelvis into the left subrenal fossa, which was also opened and drained. In all but five cases free pus existed in the space to the outer side of the ascending colon, which in each instance was drained through the ileocecal space. In one case the distended paretic bowel necessitated opening and the establishment of an artificial anus. Three of the cases thus treated died, one after an illness of nearly five months, during which time death on three or four occasions was threatened by intestinal obstruction, while a number of abscesses followed in the abdominal wall. Death resulted from exhaustion incident to the prolonged suppuration. In the second fatal case death took place ten days after the operation, due to toxemia.

Gastric Dyspepsias Amenable to Surgical Treatment.

DR. WILLIAM E. GROUND, Superior, Wis., said it is now recognized that many forms of digestive disturbance are dependent on conditions entirely outside the stomach, and involve this organ either by direct extension of the pathologic process, or indirectly by nerve influence. Among these may be mentioned inflammatory or irritative conditions in the biliary apparatus, pancreas, duodenum, or appendix, and adhesions of the stomach to the surrounding viscera. Within the stomach conditions remediable by surgical means are perforative and non-perforative gastric ulcer, chronic gastric ulcer, hemorrhage, pyloric obstruction, gastric dilatation with stasis, hyperchlorhydria, and cancer. The question of operative interference in some of these conditions is still in dispute, but the wisdom of referring cases of perforating gastric ulcer, with or without adhesions, cicatricial stenosis of the pylorus, adhesions of the stomach to any of the surrounding structures and perhaps chronic gastric ulcer, to the surgeon is now quite firmly settled.

Closely associated with ulcer is the sequence of cicatrization and contraction, and when this process involves the pylorus, it leads to stenosis and obstruction, and later, if this is prolonged, gastric dilatation and atony will result. When the

pylorus is obstructed by spasm due to the presence of the ulcer or to hyperchlorhydria, which almost always accompanies non-malignant ulcer, or to the cicatricial contraction following the healing of an ulcer, the pylorus is rendered incapable of readily transmitting its contents, the stomach becomes distended, and its muscular walls weakened, leading ultimately to permanent atonia gastrica. Stomach dilatation may be due to atony alone, but it is much more frequently due to mechanical obstruction at the pylorus. In this condition of gastric stasis, food may remain in the stomach a day or more, whereas it should empty itself within seven days at the most. In fairly advanced cases, when the obstruction has given rise to a compensatory hypertrophy of the stomach, the peristaltic movements may be seen and felt through the abdominal walls, usually accompanied by pain and vomiting. Later, when the stomach begins to dilate and assumes a more passive state, the patient complains of fullness and epigastric pains after meals. Fermentation takes place, causing eructations and heartburn, and frequently vomiting. Vomiting is a most prominent symptom when gastrectasia and fermentation are well established. When this sequence of events is set up there is but one remedy, and that is surgical intervention.

In view of the information of the curative effects of operation, they can not be attributed alone to drainage of the stomach or to short circuiting of the food current, as is so often contended, for unless the pylorus is closed food will pass through it. The explanation the writer has arrived at is that the cutting off of the circular fibers in the pyloric end of the stomach does away to a considerable extent with the muscular unrest accompanying gastric digestion, especially where ulceration is present. A gastroenterostomy acts much the same as cutting the fibers of the sphincter ani in anal fissure. In this latter condition the feces continue to pass over the ulcer, but the paralyzed sphincter prevents friction and it heals readily.

Restoration of the Perineum.

DR. HOWARD HILL, Kansas City, Mo., said that the ideal operation consists in restoring the different planes of tissue to their normal position. He has used a transverse incision which raises a flap of the posterior vaginal wall and has done the operation by using three layers of sutures. The first includes the levator ani and its fascia, reattaching that portion of the muscle which helps to form the perineal center in front of the rectum. Next he identifies and sutures the trangular ligament and attaches the sphincter ani to the perineal center. A single suture is used for the bulbo-cavernosus.

Preoperative Thrombi in Field of Operation as a Cause of Postoperative Complications and Death.

DR. A. W. ABBOTT, Minneapolis, Minn., said that thrombosis, especially of the veins, is often to be found, if looked for, in the vicinity of the field of operation. Thrombi may result from the pressure of a tumor, from cancer, or tuberculosis, etc., or they may be the result of adjacent inflammation or traumatism. Usually no attention is paid to the condition. Thrombosis in the field of operation increases the danger. The author believes many cases of fatal sepsis, pulmonary embolism, and particularly cases of so-called ether pneumonia, can be rightly ascribed to the infection of a clotted vein or its disturbance by rough handling, or both; so also pyemia, abscess of the liver, osteomyelitis, and other evidences of a metastatic infection. Aural surgeons have formulated a definite operation for thrombi of the lateral and sigmoid sinuses, namely, ligation of the internal jugular vein and clearance and drainage of the sinus. He thinks a similar course should be pursued in all operations complicated by thrombosis.

Conservatism in Postoperative Treatment.

DR. S. C. BEEDE, David City, Neb., criticised the increasing tendency among surgeons to hasten their patients out of bed and hospital after grave operations. Nature will work only so fast, and he thinks there is a limit in time beyond which it is unsafe to urge her. He contends that this limit has been overstepped, and that the perfect result which should be the aim in every case is thereby marred.

The following papers were also read: "Talipes Calcaneus," by Dr. A. F. Jonas, Omaha; "Tubercular Peritonitis," by Dr. T. E. Potter, St. Joseph, Mo.; "Management of Appendicitis Cases," by Dr. Van Buren Knott, Sioux City, Iowa; "Gluteal Cavernous Angioma," by Dr. J. E. Summers, Jr., Omaha.

THE COLLEGE OF PHYSICIANS OF PHILADELPHIA.

SECTION ON GENERAL MEDICINE.

Regular Meeting, held Nov. 13, 1905.

The president, DR. SAMUEL M. HAMILL, in the Chair.

Medical Versus Surgical Treatment of Stomach Diseases.

DR. FRANK BILLINGS, of Chicago, presented an elaborate paper which will appear in THE JOURNAL.

Indications for Surgical Intervention in Diseases of Stomach in the Absence of Perforation or Hemorrhage.

DR. GEORGE E. BREWER, of New York City, stated that the question of treatment of gastric and duodenal disorders can be settled only by careful review of reliable statistics regarding the end-results of cases treated both medically and surgically. There is not recorded a single case of carcinoma cured by medical treatment. Surgery has cured from 12 to 15 per cent. of cases submitted to radical operative treatment at a time when the disease could be completely removed. Surgery also gives great temporary relief in a large number of cancer cases which have passed beyond the period where radical operation is advisable.

The surgical treatment of gastric ulcer has shown results far in advance of those published from the best medical clinics of the world. The statistics of Greenough and Joslin, who followed and obtained the end-results of 187 cases of gastric ulcer treated at the Massachusetts General Hospital, show that, while 80 per cent. were reported as cured at the time of leaving the hospital, only 40 per cent. remained well, and that, while the hospital death rate was stated as 8 per cent., the actual death rate from the disease was found to be 20 per cent. Russell's statistics, published in *The Lancet* for January, 1904, show even a smaller percentage of final cures by medical treatment. These statistics conclusively demonstrate that 60 per cent. of all cases of gastric ulcer treated medically must look forward to death or chronic invalidism. The statistics of von Eiselsberg, Mayo, Deaver, Robson, Munro and others show from 50 to 90 per cent. of positive cures by operation.

Regarding the treatment of pyloric stenosis from ulcer or other causes, he said it might be stated positively that in no other diseases of the alimentary canal are the results of surgical treatment more strikingly satisfactory. von Eiselsberg reported 90 per cent. of his cases cured on an average of two years after operation. Mumford collected the end-results in 169 cases from 8 different surgical clinics. Of these he reported that 89 per cent. were immediately relieved of their symptoms as the result of operative treatment, while 71 per cent. remained permanently cured. The death rate from gastroenterostomy has been so reduced that at present, in the hands of expert operators, it should be less than 3 per cent. These facts, he thinks, conclusively demonstrate the superiority of surgical treatment in this class of cases. Regarding the surgical indications in diseases of the stomach and duodenum Brewer stated: 1. All cases of perforation of an ulcer of the stomach or duodenum should be immediately subjected to surgical treatment. 2. Repeated attacks of hemorrhage, threatening the life of the individual, should be treated surgically. 3. Exploratory operation should be advised in all cases of suspected cancer to establish the diagnosis and to render it possible to inaugurate radical treatment at a time when the disease can be thoroughly eradicated. 4. Gastroenterostomy should be advised in all cases of gastric cancer with pyloric stenosis before the patient becomes exhausted from suffering and starvation. 5. All cases of gastric ulcer not relieved by six weeks of intelligent medical treatment, all cases of chronic indurated ulcer, and all cases of recurrent symptoms from uncured ulcer should be subjected to surgical treatment. 6. All cases of progressive pyloric stenosis from

whatever cause, except those due to gummatous infiltration, should be referred to the surgeon as soon as the diagnosis is made.

Relation of Carcinoma to Ulcer of the Stomach, Especially as Influencing the Treatment of Ulcer.

DR. JOHN H. MUSSER said that, in view of the conclusions of Fütterer, of Chicago, in his study of some 56 cases of carcinoma of the stomach, the origin of which was in the site of an ulcer—namely, that ulcer of the stomach was followed by and might, perhaps, be considered in one sense causal of carcinoma of the stomach—and, in view of the fact that in 8 per cent. of all cases of carcinoma of the stomach a clear family history of carcinoma could be obtained, he thought it fair to the patient with a chronic ulcer of the stomach, in whom there was a family history of cancer, not amenable in six or eight weeks to medical treatment, to operate. If acute gastric ulcer can be diagnosed, medical treatment should be employed; but, in the large majority of cases, it is difficult to determine whether or not the condition is an acute manifestation of a chronic ulcer. Chronic ulcer might remain latent over a long period and suddenly manifest acute symptoms, such as hemorrhage. Such an occurrence in a patient over 40 years of age should be managed as one of chronic ulcer. In both classes of cases, however, there should be the individual study of the case. Carcinoma of the stomach, if diagnosed early, should be at once treated surgically. In cases of doubt he advised exploratory incision. He unhesitatingly demands operation in pyloric stenosis due to adhesions of all kinds. In cases of supposed ulcer where the diagnosis rested between pyloric stenosis due to ulcer and stenosis due to adhesions, if medical treatment has been unavailing, in a very short time he advises immediate operative procedure. In the doubtful differential diagnosis of pyloric stenosis due to adhesions and that of carcinoma, immediate surgical intervention was urged on the ground that if the stenosis were benign the patient would be relieved; if malignant, the patient would be given the benefit of the best chance. Dr. Musser thinks all are in accord with Dr. Billings regarding the inadvisability of operating generally in cases of ptosis and in cases of gastric neurosis in which there had occurred organic lesions, although occasionally operation brought about cure. An illustrative case was cited of a woman who for five years had been under the best medical care to overcome the neurasthenic condition, associated with ptosis and extreme gastric dilatation. Finally operation entirely relieved the dilatation, and after a period of 8 months the general phenomena disappeared. The patient gained 50 pounds, and is at present perfectly well. Dr. Musser concluded by saying that, while there are some cases in which the indications for operative procedure are positive, there are numbers which should be under careful medical attention for some time, but not too long, and that now and then a neurasthenic subject is cured only by surgical means. He said that he would rather give the patient the advantage of an exploratory operation by a competent surgeon, in cases in which the diagnosis is doubtful, than allow them to rest in the too often false security of a dogmatic diagnosis. He has never had reason to regret surgical procedures, while he has been chagrined at its non-employment in three cases that died of hemorrhage.

Final Results of Gastroenterostomy and Pyloroplasty in Stomach Diseases.

DR. JOHN B. DEAVER said that chronic non-malignant gastric affections of the stomach are attributed largely to ulcers of the stomach which produce various grades of gastric indigestion. He did not believe that the stomach exists as an isolated organ, but that it forms a part of the digestive apparatus found in the upper abdomen. Pathologic experience has shown that persistent gastric indigestion depends for its chronicity on structural organic change which can not be remedied by medical and dietetic measures. In support of this the figures of Hartmann were given of a mortality of 2 per cent. in cases treated surgically and of 24 per cent. in those cases primarily treated medically and later referred to the surgeon.

The two main therapeutic objects of gastroenterostomy and pyloroplasty are rest and drainage of the stomach. In gastric ulcer without pyloric stenosis or dilatation of the stomach, rest is the main therapeutic object. Hemorrhage, chronic in nature, is an important symptom produced by ulcer of this character, and for this symptom the surgeon's aid is most frequently sought. The value of nutrient enemata for putting the ulcerated stomach to rest, he felt, has been overestimated. Edsall had shown that, even under the best conditions possible, patients fed only by nutrient enemata are slowly starving to death. To secure this required rest, surgery short-circuits the ingested food so that when it is received into the stomach it passes directly into the jejunum by an artificial opening and never comes in contact again with the ulcerated pyloric area. Among the last 38 operations performed by Dr. Deaver for non-malignant diseases of the stomach there has been one death, a mortality of 2.63 per cent. This death occurred in a patient with chronic Bright's disease, who also had chronic appendicitis, the appendix being removed at the time the stomach operation was performed. Dr. Deaver said it should be remembered that figures given for the surgical side of the argument include not only operations to procure rest to the stomach in patients with non-stenosing ulceration, but many operations on stomachs very extremely diseased, also that the operative mortality is constantly lessening. Mumford found that of the cases treated by medical means and apparently cured, averaging about 80 per cent. of the whole, probably one-half did not remain cured. With surgical treatment Mumford's figures were given as follows: Of 7 patients Barling had, 7 remain cured; of 28 Mayo had, 27 remain cured and only 1 had recurrence of symptoms; of 37, Moynihan succeeded in tracing 29 and found that all were permanent cures; of 28, Mayo Robson traced about 20 and learned that they were all permanently cured. Dr. Deaver traced 30 patients operated on by himself and all had entire immunity from digestive disturbance. It was urged that surgical treatment allowed from 95 to 98 per cent. of these patients to recover from the operation; medical treatment, from 70 to 80 per cent. from its treatment; that surgery practically cures every patient who recovers, and that medicine permanently cures only 40 to 50 per cent. of its patients; that medical treatment is long and uncertain; surgical, rapid and sure. Dr. Deaver does not urge surgical intervention in every case of ulcer of the stomach; for instance, acute peptic ulcers are frequently cured by medical rest and by therapeusis founded on the well-known physiologic laws elaborated by Pawlow. The second object of surgical intervention is that of drainage. This is indicated in practically every case of pyloric obstruction. He does not favor the operation advocated by Beyea, that of shortening the lesser omentum, because of the danger of wounding important nutrient blood vessels and because dilatation is not materially aided and probably will increase. The problems of the proper treatment of gastric diseases, Dr. Deaver believes, can only be worked out by the physician and surgeon together. He urged that the surgeon be called earlier in consultation that, with the aid of his medical colleague, he might decide which are the proper cases for surgical treatment and at what period of the disease surgical treatment can with best advantage be applied.

Therapeutic and Prognostic Value of Occult Blood in the Stools.

DR. J. DUTTON STEELE said that the conditions in which the test for occult blood in the feces are of prognostic and therapeutic value in the course of gastric ulcer are as follows: 1. To determine the length of the various periods of the medical treatment of ulcer. The patient should be kept on liquid diet and at rest until all bleeding has stopped. 2. To detect the tendency to bleeding during the course of gastric ulcer and by appropriate medical and surgical means to anticipate and prevent serious hemorrhage. 3. To determine when the medical treatment may be considered to have failed and surgical treatment is needed. This is indicated by repeated recurrence of bleeding when the patient is started on solid food after being on liquid diet. 4. Perhaps the best test may prove helpful under certain circumstances in detecting the development of a cancer on the floor of an ulcer; as, for instance, when the bleeding recurs and will not stop, although the patient is on a milk diet and in bed.

Therapeutics

[It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns.]

Treatment of Bronchitis in Children.

Clinical experience, according to Joseph E. Winters, in *Medical News*, teaches that bronchitis in young children is never mild. A slight coryza may rapidly spread to an involvement even of the small bronchi within twenty-four hours. In the treatment of bronchitis the temperature of the room should be uniformly at 72 F., both day and night. The room should be so situated as to admit the sun's rays and an open fire should be present, if practicable. Fresh air must be the rule at all hours. The child, according to Winters, should be in a crib and not in a bed. The crib should be flannel lined and placed in the center of the room, never near a wall, window or door. Screens should be placed about the crib for protection against draughts of air. The child should be clothed in light flannel, both arms and legs. The shirt should be loose and open in front, secured by safety pins, so that ready access may be had for physical examination. In cases of moderate severity this treatment is all that is required.

MEDICINES.

In severe cases this author recommends aconite as a remedy of perhaps the greatest efficacy, in order to restrain and to limit the amount of blood to the arteries. This preparation limits the arterial pressure and should be given in frequent doses during the first hour, gradually diminished after four or six hours, and not continued for any great length of time. He recommends the following combination for this purpose:

℞. Tinct. aconiti.....m. iv |25
Aquæ dest. .....℥iii 90|

M. Sig.: One teaspoonful every fifteen minutes for one hour; every half-hour for four or six hours; then every hour for twenty-four hours.

The foregoing is the correct dose for a child of 1 year.

Arterial pressure is also lessened by means of diaphoresis, and as a diaphoretic he recommends spiritus etheris nitrosi as without an equal in such cases. Potassium citrate and liquor ammonii acetatis may be used in a similar manner. These preparations, however, more frequently cause nausea and so affect the sense of taste of the child, on account of this disagreeable effect, that nourishment is persistently refused. Intestinal elimination must also be properly looked into. Baths or sponging are not so necessary in these cases, according to this writer, as he states that cold to the cutaneous capillaries is an unphysiologic procedure and pernicious, and tends to extension of the disease.

STAGE OF SECRETION.

In the stage of excessive secretion agents must be employed which tend to diminish this condition. These are camphor, carbonate of ammonia, nux vomica, oxygen inhalations and counter-irritation. He recommends the spirits of camphor as the most valuable agent, and for a child 1 year of age he prescribes the following combination:

℞. Spiritus camphoræ .....℥i 4|
Saccharin .....gr. i |06
Spiritius etheris nitrosæ.....℥ii 8|
Syrupi tolutani .....℥iv 15|
Aquæ gaultheria, q. s. ad.....℥iii 90|

M. Sig.: One teaspoonful every half-hour.

In the foregoing prescription the sweet spirits of nitre is added to prevent the precipitation of the camphor, and the syrup of tolu diminishes the pungency of the mixture.

The ammonium carbonate in one-grain doses is a valuable addition to the foregoing mixture unless it provokes nausea.

When the bronchi are loaded with tenacious secretion mustard is of valuable service. A paste composed of six parts of flour, one part mustard, and mixed with cold water and the white of egg, and covering the entire region over which the moist râles are to be heard, is recommended, and allowed to remain for twenty or thirty minutes, and renewed at intervals of from two to four hours, according to the condition of the skin.

When the air tubes are blocked by tenacious muco-purulent secretion they may be freed by active emesis. This method of treatment should not be repeated more than once or twice in the twenty-four hours, and the child must be kept in the prone position to secure gravitation of secretions to a sensitive mucous membrane, in order to avoid refilling.

In cases of laryngo-tracheitis and tracheobronchitis, in which a harassing cough is present, indicating inflammation of the upper respiratory passage, oleum ricini is recommended, combined as follows:

℞. Olei ricini .....℥iv 15|
Saccharin .....gr. ii |12
Pulv. acaciæ q. s. |
M. Ft. emulsio et adde:
Spiritus etheris nitrosæ.....℥i 30|
Aquæ calcis q. s. to make.....℥iii 90|
M. Sig.: A teaspoonful every hour.

When the cough is exceedingly distressing, counter-irritation over the larynx and sternum should be added to the treatment by the application of flaxseed poultice with mustard sprinkled over the surface. In older children Winters recommends in those irritating coughs superinduced by nervous irritability, that small doses of codein be given. In inflammations of the larynx, trachea, or bronchi, with much temperature present, he recomends aconite as the most efficient preparation.

Counter-Irritation.

Wainwright, according to an abstract in the *Medical Standard*, states that counter-irritation may be resorted to for three purposes: First, to relieve pain; second, to lessen congestion and inflammation of deep-seated organs, and, third, to promote the absorption of the products of inflammation. Counter-irritants are divided into three classes: First, rubefacients; second, vesicants, and, third, pusulants. Rubefacients do not destroy the structure of the skin, but simply cause a mild irritation and redness of the surface. They are employed essentially in functional disturbances. Vesicants cause structural changes in the skin and the underlying tissues, and are of service in chronic affections, or in those cases in which there has been a permanent change in the organs or tissues following inflammation. The third class cause pustular eruption. The author mentions as the best rubefacients mustard plasters, pepper, iodin, turpentine, and as vesicants the actual cautery, caustics, setons; as pustulants he believes that croton oil and tartrated antimony are the best. The croton oil as a pustulant must be diluted one-half with olive oil before application. The local effect of rubefacients is the same as that of acute inflammation, by producing irritation of the nerve terminals, redness, swelling, etc. He speaks of blisters as being contraindicated in gout and in diabetes, in aged individuals, and in debilitated or anemic patients, because sloughing is so liable to occur. Sawyer, according to this abstract, recommends the use of a preparation of capsicum as a rubefacient. He has found that an ethereal tincture of capsicum, by the reason of rapid evaporation of its ether, is of more value than an alcoholic tincture of the same preparation. He recommends as an excellent rubefacient the following combination:

℞. Tinct. capsici ether. |
Liquor ammoniæ |
Olei terebenthinæ |
Olei lini, āā.....℥iv 15|
M. Sig.: Apply locally on flannel cloth or spongio piline.

Vaginitis.

The following combination is recommended by the *Medical Review of Reviews* in the treatment of vaginitis:

℞. Pulv. aluminis |
Zinci sulphitis |
Sodii biboratis |
Acidi carbolici, āā.....℥i 30|
Aquæ .....℥vi 180|
M. Sig.: A teaspoonful to a quart of lukewarm water, as a vaginal douche, twice daily.

For prostatitis the following combination is recommended by the same periodical:

℞ Ext. opii aq.....gr. viii | 50
Ext. hyoscyami.....gr. iv | 25
Olei theobromæ, q. s. |

M. Ft. suppository No. viii. Sig.: Insert one suppository into the bowel, and repeat as necessary.

Erysipelas.

Mortimer, in *Merck's Archives*, recommends as prophylactic measures in the treatment of erysipelas that the patient be isolated and all dressings burned when removed. Small doses of calomel should be administered at intervals of one hour for six or eight doses, followed by a saline purgative. During the first twenty-four hours one-minim (.06) doses of tincture of aconite should be given every two hours. Alcohol may be given as a stimulant, if required, or as a substitute strychnia or nitroglycerin may be given. An icebag may be applied to the head to relieve the pain, and in addition to that the following combination may be given:

℞ Caffeinæ citratæ |
Camphoræ monobromatæ, āā.....gr. ss | 03
Acetanilid .....gr. ii | 12

M. Ft. cap. No. i. Sig.: One such capsule every two hours.

Locally the following is recommended:

℞ Tinct. opii .....℥i 30
Liq. plumbi subacetatis.....℥ii 60
Aquæ dest.....Oi 500

Sig.: To be applied locally on compresses.

Liquid nourishment should be given systematically every three hours. Ice-cream may be given, and cold water should be given freely. During convalescence the general tonic treatment is indicated, with some form of iron, or as follows:

℞ Strychninæ sulphatis |
Acidi arsenosi, āā.....gr. 1/50 | 0012
Extracti gentianæ.....gr. ss | 03
Quinin sulphatis.....gr. ii | 12

M. Ft. cap. No. i. Sig.: One such capsule after meals. Or:

℞ Strych. sulphatis.....gr. 1/4 | 015
Liquor ferri et ammon. acet.....℥vi 180

M. Sig.: One tablespoonful in water after meals.

Medicolegal

Use of Skeleton to Illustrate Testimony.

The Supreme Court of Illinois says that, in Chicago & Alton Railroad Company vs. Walker, a personal injury case brought by the latter party, physicians who testified on behalf of the plaintiff were permitted, over the objection of the defendant, to use the skeleton of a human foot in explaining to the jury the location of the various bones and ligaments of the ankles. This court thinks the ruling in that regard unobjectionable. It says that the skeleton itself was not offered in evidence, but was simply used by the expert witnesses to illustrate their testimony. The court might, in its discretion, have permitted the plaintiff to exhibit her injured ankle to the jury, and allowed physicians to explain from it the nature and character of the injury. It was equally proper to use the skeleton for the purpose of explaining the testimony. Moreover, even if the skeleton had been improperly used, no substantial injury could have resulted therefrom to the defendant, as its counsel had full opportunity to cross-examine the witnesses.

Indirect Use of Medical Works in Framing Questions.

The Court of Appeal, First District, California, says that, in the homicide case of People vs. Bowers, a physician who had given testimony as to the symptoms and effects of arsenical poisoning was asked by the district attorney this question: "Is this a correct statement: While the poison is being eliminated, the process which begins very soon after it is taken, it generally causes fatty degeneration of the liver, heart, and kidneys, the symptoms of which are often very prominent?" This was objected to on the ground that it appeared that the district attorney was reading from certain medical books and asking the witness questions therefrom. It has been held, in California, that it is not competent on the examination of medical witnesses to read to them extracts from medical works and ask them whether what is so read corresponds with their own judgment, when it is apparent that the sole object of so doing is to place before the jury the opinion of the author of the books referred to. But from the record in this case it did not appear, except for the statement of the attorney for the defense, that the jury could have known that the district attorney was, in fact, reading from a medical book, or from any book. So far as appeared, if in fact he was reading his question from a book, it was entirely out of sight of the jury. Moreover, when the objection was raised, the district attorney said that he was making this his own question. The court says that, while the course adopted by the district attorney could not be commended, it does not think that it would justify a reversal, or that actual error had been shown.

No Damages for Mere Mental Disturbance.

The Supreme Court of Pennsylvania says that it had the personal injury case of Huston vs. Borough of Freemansburg reargued before the full court to settle finally the question that there can be no recovery of damages from fright or other merely mental suffering unconnected with physical injury. It says that the industry of counsel furnished it with a few cases favorable to his contention not previously considered. But they did not show any sound reason for a change of the court's view. All of the cases were of recent and unhealthy growth, and none of them stood squarely on the ancient ways. In the last half century the ingenuity of counsel, stimulated by the cupidity of clients and encouraged by the prejudices of juries, has expanded the action for negligence until it overtops all others in frequency and importance; but it is only in the very end of that period that it has been stretched to the effort to cover so intangible, so untrustworthy, so illusory, and so speculative a cause of action as mere mental disturbance. It requires but a brief judicial experience to be convinced of the large proportion of exaggerated, and even of actual fraud, in the ordinary action for physical injuries from negligence; and if the court opened the door to this new invention the result would be great danger, if not disaster, to the cause of practical justice. If, therefore, the question were new, this court should see no reason to reach a different conclusion. But it is settled for this state, and is no longer open to discussion.

Criminal Negligence and Liability—"Intestines."

The Supreme Court of Florida, Division B, holds, in Hampton vs. State, that where the death of a person results from the criminal negligence of a medical practitioner in the treatment of the case the latter is guilty of manslaughter. This criminal liability is not dependent on whether or not the party undertaking the treatment of the case is a duly licensed practitioner, or merely assumes to act as such, acted with good intent in administering the treatment, and did so with the expectation that the result would prove beneficial. The real question on which the criminal liability depends in such cases is whether there was criminal negligence. Such criminal negligence is largely a matter of degree, incapable of precise definition, and whether or not it exists to such a degree as to involve criminal liability is to be determined by the jury. Such criminal negligence exists where the physician or surgeon, or person assuming to act as such, exhibits gross lack of competency, or gross inattention, or criminal indifference to the patient's safety; and this may arise from his gross ignorance of the science of medicine or surgery and of the effect of the remedies employed, through his gross negligence in the application and selection of remedies and in his lack of proper skill in the use of instruments, or through his failure to give proper instructions to the patient or his attendants as to the use of the medicines. But where the person treating the case does nothing that a skillful person might not do, and death results merely from an error of judgment on his part, or an inadvertent mistake, he is not criminally liable.

The criminal liability of a physician for the death of his patient brought about by his gross negligence, carelessness, or ignorance, may be established on an indictment or information predicated on the general statute defining manslaughter. Sec-

tion 2392 of the Revised Statutes of Florida of 1892 providing as follows: "If any physician, while in a state of intoxication, shall, without a design to effect death, administer any poison, drug or medicine, or do any other act to another person which shall produce the death of such other, he shall be deemed guilty of manslaughter," does not furnish the only exclusive case where a physician can be held criminally liable for the unintended death of his patient brought about by his gross negligence or ignorance. Nor does said section render the provisions of the general manslaughter statute inapplicable to cases of death unintentionally produced by physicians through gross negligence or ignorance, where there is no question of the sobriety or intoxication of such physician; but the provisions of said Section 2392 were intended as an addendum to the provisions of the general manslaughter statute, in cases of unintentional death at the hands of physicians, to provide for cases that might not be covered by the general statute.

Where an information charges a physician with negligently pulling out the "intestines" of a patient, whereby her death was produced, it is competent at the trial to prove under such charge that the larger omentum, the mesentery, or any other organ having its place in the abdominal cavity, was pulled out or removed. The word "intestines," when used in an information or indictment, must be given its broadest popular and most comprehensive sense, as denoting everything on the inside, within, internal, inward as opposed to external, and, when applied to the human anatomy, includes the bowels, entrails, viscera, enteron, with all of their annexes and appendages; indeed, everything contained in the abdominal cavity.

Current Medical Literature

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

American Medicine, Philadelphia.

January 6.

1 Prognosis in Tuberculosis. L. F. Flick, Philadelphia.
2 *Tuberculosis of the Thoracic Duct and Acute Miliary Tuberculosis. W. T. Longcope, Philadelphia.
3 Feeding the Baby. W. B. Hoag, New York.
4 *Priapism a Symptom in Leukemia. P. L. Gunckel, Dayton, Ohio.
5 *Fatal Hematemesis, the Result of Chronic Gastric Ulcer. F. H. Murdoch, Pittsburg, Pa.
6 Ruptured Ectopic Pregnancy Complicated with Appendicitis. B. F. Stevens, El Paso, Texas.

2. **Tuberculosis of Thoracic Duct.**—Longcope reports 30 cases of tuberculosis in which especial attention was paid to a study of the thoracic duct as a possible point of origin for the generalized process. Of these 30 cases, 19 were typic instances of generalized acute miliary tuberculosis, in which minute tubercles were scattered in enormous numbers through most of the organs of the body. When histories could be obtained, it was found that the course of the disease was rapid, lasting usually from two to twelve weeks. The thoracic duct in 14 of the 19 cases showed a more or less extensive tuberculosis, usually with caseous nodules, while in one instance, though there was no tuberculosis of the wall of the vessel, many tubercle bacilli were found in smears from the duct lymph. In one of the four remaining cases in which the duct was normal there was a primary tuberculosis of the epididymis and testicle, with organized thrombi in the vesical veins, containing caseous masses and tubercles. In eight instances the generalized process was subacute or chronic. Large tubercles or caseous masses were scattered in small numbers through the various organs, while during life the course of the disease was protracted, lasting from three to nine months. In only two of these cases was there a tuberculosis of the thoracic duct. In both instances the tubercles were small and occurred sparingly, but in one a few tubercle bacilli were found in smears from the fluid of the duct. Finally, in three instances, the tuberculosis was of a chronic type and confined to the lungs and peritoneum. In all of these cases the thoracic duct was normal. Of the 27 cases of tuberculosis in which the process was more or less generalized, 17, or almost 63 per cent., showed tuberculosis of the thoracic duct, or, as in one instance, tubercle bacilli in the lymph from the duct without lesions of its walls. Of the acute cases in over 79 per cent. the duct was affected or contained tubercle bacilli. The type of lesion in the duct varied considerably. Sometimes there was a single large caseous nodule usually near the receptaculum or about the arch of the aorta, with small tubercles over the intima of the vessel above and below it; sometimes several caseous nodules were scattered through the duct, while occasionally the walls of the lymphatic were simply seeded with small tubercles. In every instance the lymph nodes of the mesentery, retroperitoneum, posterior mediastinum, or bronchial regions were the seat of a chronic tuberculosis. At times several groups of glands were affected, but more often only one group, and rarely only one or two glands. Often the lesion in the duct appeared almost as old as that in the neighboring lymph nodes and was in close association with it, though a direct extension of the process from the gland to the wall of the duct was never seen. In at least two cases caseations of a small group of lymph nodes and of the thoracic duct wall were the only foci of chronic disease which could be found in the body. From the study of these cases Longcope concludes that tuberculosis of the thoracic duct is of great frequency in cases of generalized tuberculosis. He believes that the lesions in the duct from which tubercle bacilli are swept in great numbers through the lymph to the general circulation form the starting point for the generalized acute process.

4. **Priapism in Leukemia.**—Gunckel reports a case in which this symptom occurred. He believes that the changes which take place in the corpuscular elements in leukemic blood conduce to this condition, and that the consequent leucocytosis produces certain changes in the blood vessels that are concerned in the mechanism of an erection.

5. **Fatal Hematemesis in Chronic Gastric Ulcer.**—Murdoch reports the case of a man aged 40, who, after living on liquids for two months, was able to take solid food without discomfort. He had good health for two years after this time, then began having pain two or three hours after meals, which was relieved by sodium bicarbonate. Six years later he began to have severe pain which was not relieved by sodium bicarbonate. The pain was accompanied by vomiting, then by hematemesis, which continued at intervals till his death, four months afterward. The bleeding could not be stopped by any of the measures usually employed for this purpose. Operation was urged but refused. The autopsy showed an ulcer 3½ by 2⅛ inches, situated on the posterior wall of the stomach. The base of the ulcer was formed by the pancreas, to which the stomach was firmly adherent.

Medical Record, New York.

January 6.

7 *Rupture of the Esophagus Resulting from External Traumatism. H. E. Lomax, Albany, N. Y.
8 *Acute Yellow Atrophy of the Liver Following Eclampsia. L. T. Royster and C. R. Grandy, Norfolk, Va.
9 *Selective Absorption by the Cell. W. F. Waugh, Chicago.
10 Eyes and Ears That Might Be Saved. S. S. Wallian, New York.
11 *Nailing the Head of the Humerus for Fracture of the Surgical Neck. H. A. Haubold, New York.
12 *Sutures and Their Preparation. W. H. Waters, Boston.
13 Radium, Its Known Medical Value. M. Metzenbaum, Cleveland, Ohio.

7. **Rupture of Esophagus from External Traumatism.**—Lomax says that there has been, up to this time, but one case on record which can be properly included under rupture from external traumatism. The author's case, which is the second to be reported, was that of a woman aged 44, whose body was forcibly compressed in an elevator accident. She was not rendered unconscious and did not complain of great pain. Death occurred eleven hours later, after a rather sudden onset of the symptoms of collapse, and the autopsy revealed a rupture of the esophagus, close above the diaphragm, with escape of stomach contents into the left pleural cavity. There were in addition, multiple fractures of the pelvis.

8. **Acute Yellow Atrophy of Liver Following Eclampsia.**—Royster and Grandy describe a case and review the modern theories regarding the relationship of these diseases. They sum up their own belief as to their identity as follows:

1. A toxemia is always the primary condition, but it may be severe enough only to produce the early symptoms—headache, lassitude, disturbances of vision, and a diminished excretion of urine and urea, with possible edema and albuminuria. In a few cases this stage has been followed by coma and death, without convulsions, the pathologic findings being the same as in eclampsia. 2. In eclampsia (the second stage) the toxemia has become severe enough to interfere greatly with the functions of the liver and kidneys, and to produce the nervous irritation, made evident by the convulsions and coma. The severer poisoning here produces grave lesions in various organs, and often causes death. 3. In acute atrophy of the liver the changes have progressed still further and have practically destroyed this organ. We have added to the convulsions (which, however, do not necessarily occur) a deepening coma, an increasing jaundice, vomiting, and often purging, with blood in the stools, followed practically always by death.

9. **Selective Absorption by Cell.**—Waugh argues that the individual cell has a selective power and is able, therefore, also to control drug absorption. If a drug is administered, those cells needing the particular properties bestowed by the remedy will take it up, whereas the others that are not likely to be benefited by it do not absorb it. He concludes that it may often be advantageous to give several remedies together that are apparently antagonistic in action, with the expectation that the proper cells only will be influenced.

11. **Nailing Head of Humerus for Fracture of Surgical Neck.**—Haubold describes a procedure successfully employed in a case in which the displacement could not be overcome by ordinary means. Langenbeck's anterior incision was made, the deltoid separated from the pectoralis major, and the fracture exposed. There had been much subcutaneous hemorrhage and the upper end of the lower fragment was somewhat comminuted; the loose fragments were removed. The fragments were brought into apposition with considerable difficulty, and only by forcibly prying the lower fragment outward with the aid of a periosteal elevator. With the fragments held in place, a small skin incision was made at the outer edge of the acromion process and a four-inch steel nickel-plated nail was driven through the head of the bone and onward into the shaft, thus firmly fixing the fragments in place. About three-fourths of an inch of the nail, with its head, was permitted to protrude from the skin. At the end of a week a plaster-of-Paris dressing was applied and four weeks later the nail was removed. Recovery of function was perfect.

12. **Sutures and Their Preparation.**—Watters commends highly a method of sterilization of catgut devised by W. F Wesselhoeft. This consists in placing the separate strands in a small envelope which is enclosed in a larger one. The envelopes are dried and packed in a small brass case which is filled to a definite point with alcohol and is closed hermetically with screw bolts. The case is then immersed in boiling water for an hour. This raises the temperature of the contents to 212 degrees and develops a pressure of 25 pounds to the square inch, thus insuring thorough impregnation of the catgut with the alcohol. The envelopes dry in a short time on removal from the alcohol. The advantages of the method are that it is simple and inexpensive to carry out, while both practical experience and the author's culture experiments prove that absolute sterility is obtained. Fractional sterilization is illusory in dealing with catgut.

Boston Medical and Surgical Journal.

January 4.

14 Physical Aspect of American Football. E. H. Nichols and H. B. Smith, Boston.
15 *Fractures of the Superior Maxilla Caused by Direct Blows Over the Malar Bone. A Method for the Treatment of Such Fractures. H. A. Lothrop, Boston.
16 Puerperal Septicemia. E. H. Stevens, Cambridge, Mass.

15. **Fracture of Superior Maxilla.**—The variety of fracture discussed by Lothrop is that generally classed as a fracture of the malar bone involving either its body or the zygomatic arch. Lothrop treats these cases as follows: The cheek on the affected side is raised and drawn to one side so as to expose the canine fossa. A horizontal incision about three-quarters of an inch long is made along the line of junction of the mucous membrane of the alveolus and the cheek in the uppermost portion of the canine fossa. The incision is posterior to the canine ridge and is at the highest point of the vestibule of the mouth. The incision is then carried down directly to the bone and the soft parts are slightly freed by means of a periosteum elevator. The director is now pushed through the fissure, or, if none be detected, through the intact bone into the antrum of Highmore. Guided by the groove of the director, the operator may pass larger instruments into the antrum, tending meanwhile to force the fragments upward and forward. The opening should be made sufficiently large to pass a No. 24 French sound. With elevators of suitable size and shape the depressed portion of the anterior wall of the maxilla may be elevated. Then a sound is introduced and its tip carried to the apex of the antrum, that is, directly opposite the malar bone. The head should be held erect and firm by assistants. Both hands of the operator should be placed on the sound, one being about half-way down and resting on the side of the face in order to give support and steadiness. Gradual increase in pressure is then exerted on the sound, the force being directed in such a manner as to tend to replace the malar bone in its normal position. As it resumes its normal position the asymmetry will be seen to disappear. By means of the sound and the other elevators all fragments may be replaced. The finger placed on the skin over the malar bone and over the region of the anterior wall of the maxilla will serve for a guide as to the completeness of the reposition of fragments. Finally, a rather broad instrument is introduced through the opening into the antrum with its tip directed toward the malar so as to hold this bone in position. Then long and very narrow strips of iodoform gauze and sterile gauze should be introduced carefully so as to pack the antrum. These strips should fill up first the malar end of the antrum, gradually approaching its nasal surface. Care must be taken not to push back the fragments of the maxilla and also not to force gauze in between the maxillary surface and the check. The ends of all of these narrow strips should be left just protruding at the incision in the vestibule of the mouth. When properly packed the position of all fragments may be maintained. No external dressing should be applied.

New York Medical Journal.

January 6.

17 *Axillary and Pectoral Cicatrices Following the Removal of the Breast, Axillary Glands, and Connective Tissue for Malignant or Other Diseases. J. B. Murphy, Chicago.
18 Hand Protection in Roentgen Praxis. H. G. Piffard, New York.
19 Professor F. Blochmann's Work on Accidental Vaccination. G. Dock, Ann Arbor, Mich.
20 Pathology and Diagnosis of Myocardial Inflammations and Degenerations. J. Daland, Philadelphia.
21 Difference in the Behavior of Dust from that of Bacteria in the Tonsillar Crypts. J. Wright, New York.
22 *Chronic Endotrachelitis; New Method of Treatment with New Instruments. D. H. Craig, Boston.
23 Vicious Circle After Gastroenterostomy. J. B. Deaver, Philadelphia.
23½ Water as a Local Anesthetic. J. A. Wyeth, New York.
24 Strenuous Life of School Girls. W. P. Northrup, New York.
25 Aphasia, Hemiparesis and Hemianesthesia in Migraine. S. E. Jelliffe, New York.

17. **Prevention of Cicatrices Following Breast Operations.**—According to Murphy, the best results are obtained by making the incision high up on the chest and rectangular; the apex of the incision should be just beneath the acromion process, the inner limit parallel to the fibers of the pectoral and the outer parallel to the long axis of the humerus. The incision permits of removal or division of both of the pectorals and allows the greatest latitude for axillary dissection. Next to the rectangular, the sinuous incision favored by Rodman causes the least disturbance from contraction. If the skin is involved, the line of incision must be accommodated to the extent of excision of the skin demanded by the pathologic condition, and semicircular flaps rolled from the chest, back or shoulder should be so formed as to cover the denuded area. These, however, should never be united so as to form a straight scar at the anterior axillary line. Murphy says that the best muscle to cover the important structures of the axilla is the lower part of the pectoralis major. Its aponeurosis should be removed with the breast, as the aponeurosis, and not the muscle, carries the lymphatics, in which metastasis occurs. The muscle is then cut from its costal attachments for a width of from 2 to 2½ inches, well toward the sternal margin, and split outward parallel to its fibers, allowing the humeral attachment to remain. The remaining portion of the pectoralis major, its fascia, the pectoralis minor and its fascia, may or may not be removed, depending on the operator's predilection

in this matter. When the dissection of the axilla is complete the pectoral flap is drawn across the nerve artery and vein, and fixed at the apex of the axilla, covering the anterior and inferior surface of these structures. Three or four stitches are sufficient for the purpose. Two or three additional sutures may be made attaching the flap to the latissimus or subscapularis. If the latissimus is used it should be divided well down, 2 inches of its margin and fatty tissue freed and the muscle split upward toward the humeral attachment, the flap drawn forward and upward and attached in the same manner as the pectoralis, to cover the axillary structures. The skin flaps are then placed in position in the usual way. After these procedures there is a fullness in the axilla, but this rapidly subsides as the muscle atrophies. When the wound is closed the arm is dressed at right angles to the body. It is held in this position by an axillary cast extending over the side of the chest and out over the arm to the elbow. The position is not uncomfortable. The cast immobilizes the structure during the process of repair. It can be removed at the end of ten days, when the stitches are taken out. Murphy insists that there should be a perfect approximation of all the axillary surfaces when the operation is complete and the arm is dressed and placed in position. The article is illustrated.

22. **New Operation for Chronic Endotrachelitis.**—In connection with this operation Craig has devised three instruments, (1) a cervical forceps designed to grasp the anterior aspect of the portio vaginalis as near as possible to, but not into, the external os; (2) an external os dilator, and (3) a curette, the edge of which is obtained by beveling from above downward and inward, making the blade cut as the curette is withdrawn. The patient is placed in the Sims position. For several days prior to operation the patient uses three two-quart 1 to 5,000 formalin douches, moderately hot, so as to secure thorough asepsis. It is not necessary to scrub or to shave the vulva. The vagina is thoroughly scrubbed with a pledget of sterile cotton saturated with a strongly alkaline solution, and this is immediately followed by a scrubbing with 1 to 5,000 formalin, or any equally efficient germicidal solution. The os is dilated and the anterior outer aspect of the portio vaginalis is grasped with the forceps as near as possible to the external os. The grasp should be deep and firm enough to furnish good counter-pressure without danger of tearing out. Care should be taken not to have the teeth penetrate to the lumen of the canal. The tip of the dilator is then introduced through the external os and against the counter-pressure of the forceps is forced home until the shoulder is in contact with the external os. Care must at all times be taken to avoid unnecessary downward traction, as this puts unnecessary strain on the uterine ligaments and favors subsequent malpositions of both uterus and appendages. The curettement of the cervical canal must be so thorough as completely to remove the cervical mucosa giving the familiar grating sensation felt when the musculature is reached. In proper cases no particular care is needed to guard against passing the internal os. The curettement is concluded by a few rotations of the curette on its long axis while it is gently pressed against the resistance offered by the internal os in order to remove the tissues immediately subjacent. Finally the cervical canal now denuded is antisepticised by the application of iodized phenol to its entire surface, the vaginal vault is filled with powdered boric acid, and a 33 per cent. ichthyol and glycerin strip is laid against the os internum and about the portio vaginalis. Diseases of the tubes and ovaries contraindicating traction and of such a nature as to make any collateral treatment only partially successful should constitute a contraindication to this form of treatment except as an immediate preliminary to the radical treatment of the associated lesions.

St. Louis Medical Review.

December 30.

26 Biographic Clinic on Berlioz. (Concluded). G. M. Gould, Philadelphia.

Lancet-Clinic, Cincinnati, Ohio.

January 6.

27 *Irritation of the Bladder. A. Ravogli, Cincinnati.

28 Heads and Tales. T. B. Greenley, Meadow Lawn, Ky.
29 *Sarcoma of the Anterior Segment of the Globe. O. Tydings, Piqua, Ohio.
30 Dermatitis Venenata. E. S. McKee, Cincinnati.

27.—See abstract in THE JOURNAL, Oct. 28, 1905, page 1352.

29. **Id.**—Nov, 4, 1905, page 1435.

American Journal of Medical Sciences, Philadelphia.

December.

31 *Xanthelasma and Chronic Jaundice. T. B. Futcher, Baltimore.
32 The Nature and the Lesions of Cirrhosis of the Liver with Special Reference to the Regeneration and Rearrangement of the Liver Parenchyma. A. O. J. Kelly, Philadelphia.
33 Case of Congenital Hepatoptosis, Showing a Mesohepar. T. W. Clarke and D. H. Dolley, Cleveland, Ohio.
34 Chronic Parenchymatous Nephritis; Acute General Infection; Infarction of the Lung; Double Phlebitis; Nephrolithiasis; Partial Recovery. C. B. Gamble, Jr., Baltimore.
35 Fatal Obliterating Endophlebitis of the Hepatic Veins. A. F. Hess, New York.
36 Excision of the Head of the Humerus for Congenital Subacromial Dislocation of the Humerus. J. B. Roberts, Philadelphia.
37 Volvulus of the Cecum and Ascending Colon. A. C. Wood, Philadelphia.
38 *Relation of Lesions of the Gasserian and Posterior Root Ganglia to Herpes Occurring in Pneumonia and Cerebrospinal Meningitis. W. T. Howard, Jr., Cleveland, Ohio.
39 Case of Syringomyelia with Double Optic Neuritis. T. H. Weisenburg and J. Thorington, Philadelphia.
40 Case of Chronic Anterior Poliomyelitis. G. A. Moleen, Denver, and W. G. Spiller, Philadelphia.
41 *Myoclonus Multiplex. D. O. Hecht, Chicago.
42 Infectious Arthritis, Bacteriologic Contribution to the Differentiation of the Rheumatic Affections. R. Fayerweather, Baltimore.
43 *Fatal Case of Stokes-Adams Disease with Autopsy, Showing Involvement of the Auriculoventricular Bundle of His. A. Stengel, Philadelphia.

31. **Xanthelasma and Chronic Jaundice.**—The three cases reported by Futcher all occurred in women, their respective ages being 39 (two), and 42 years. The duration of the jaundice before the xanthomata appeared was eight months, eight years and one and one-half years. The cause of the jaundice was gallstones of the common duct in two cases, in one of which there was also biliary hypertrophic cirrhosis of the liver, and in the third case hypertrophic cirrhosis of the liver alone. In all three cases the eyelids were involved; in one the eyelids only. In the other two there were lesions on the extremities and to a less degree on the trunk. In two cases the xanthomata appeared on the hands first; in the third on the eyelids. The xanthomata were chiefly in the form of plaques in all the cases. There were a few nodular xanthomata in two cases. The distribution was strikingly symmetrical. In one case there were xanthomata on the gums, and in another histologic examination of the bile ducts showed that xanthomata of the mucous membranes of the ducts were present. At all events the histologic picture showed cells identical with the "xanthoma cells" of the lesions in the skin. In one case there was a spontaneous disappearance of the xanthomata four and one-half years after the onset of the disease, and about four years after the gallstones were removed at operation. Two of the patients were operated on, and one came to autopsy, so that the causes of the jaundice were definitely ascertained. Futcher says that four-fifths of the cases of xanthoma multiplex in adults occur in chronic jaundice. In these cases men and women are about equally affected, with possibly a slightly greater frequency in the latter. The hepatic conditions causing the jaundice have been found to be gallstones, stricture of the bile ducts, atrophic and hypertrophic cirrhosis of the liver, hydatids and cancer. In addition to the skin, the tendons and mucous membranes may occasionally be involved. The onset is said to be most frequently on the eyelids. The xanthomata accompanying jaundice are believed to be directly traceable to the latter or to some associated toxic substance circulating in the blood. Symmetry in distribution is often striking, and the tendency to develop in the folds and creases of the joints is a remarkable feature. The views as to the actual nature and sequence of tissue changes in the lesions vary much. Once they develop they rarely disappear. Spontaneous involution is rare. No treatment other than surgical, in suitable cases, is of any avail. The indications are to relieve the underlying process if possible.

38. **Herpes in Pneumonia and Cerebrospinal Meningitis.**—Howard believes that the cases reported by him furnish additional proof to support the position that the ordinary herpes zoster, as well as the herpes of pneumonia and cerebrospinal

meningitis, is a pathologic condition dependent on definite lesions of certain sensory ganglia, which may be caused by a variety of agents acting in different ways. The herpes is dependent on the ganglionic lesions, and apparently does not vary with the causes of the latter, whether they are due to embolism, thrombosis, hemorrhage, invasion by tumors, microorganisms and their toxins, or to other poisons. The ganglionic changes in the cases of herpes complicating pneumonia and cerebrospinal meningitis studied by Howard were identical with those described by Head and Campbell as occurring in their acute cases of so-called spontaneous herpes zoster. In the herpes of meningitis the ganglion changes probably are commonly due to an extension of the inflammatory process along the nerve roots to the ganglia. In pneumonia the *matrices morbi* are apparently brought to the ganglia by the circulation.

41. **Case of Myoclonus Multiplex.**—Hecht's patient, a man aged 28, was a prize-fighter by profession. His family history was negative, except that the father died of a cancer of the lip at 52. The personal history also was negative, except that the patient had had three attacks of gonorrhea. His personal habits had been very bad. He had used liquor excessively. Following a severe indulgence in liquor he noticed a twitching of the abdominal muscles which gradually increased in severity and also became more generalized. There has never been loss of consciousness, frothing, biting of the tongue, or tonic rigidity. The man has never had anything resembling an epileptic fit. The twitchings are now so severe that locomotion is almost impossible. The acts of dressing and undressing are most tedious and cumbersome. The characteristic twitching is noticeable in all the muscles. The speech of the patient is too interrupted and explosive to be understandable. Deglutition is much interfered with. Myotatic irritability is increased. Sensation is nowhere disturbed. Whisky and chloral alone allayed the mild spasms.

42. **Infectious Arthritis.**—Fayerweather reports 3 cases of infectious arthritis in which the bacteriologic findings were positive, and a fourth case of typical acute articular rheumatism. It was impossible to identify any of the organisms found in the affected joints with previously described germs.

43. **Fatal Case of Stokes-Adams Disease.**—In the case described by Stengel there was found at the autopsy a moderate grade of general arteriosclerosis. The heart was hypertrophied, the walls of the left ventricular being especially involved. The heart muscle was normal in appearance in all parts, except where an endocardial lesion affected a small area at the upper part of the interventricular septum. The root of the aorta was slightly atheromatous, and the openings of both coronary arteries were involved. The coronary arteries themselves were distinctly thickened, but in no place calcareous or stenotic. The aortic leaflets were slightly diseased, but not calcareous. The valves seemed to be competent. The lesion of importance was one on the anterior mitral-leaflet toward its base and the aortic edge. This was a patch of atheromatous character, sclerotic and white, and it extended to the endocardium exactly over the bundle of His, where this band passes from the ventricle to the auricle. Viewed from the side of the right ventricle, the specimen did not show any evidence of penetration of the sclerotic process, but on the left ventricular side it was evident that the bundle of His was involved in the area of disease. The histologic findings in the case will be published later.

Journal of Michigan State Medical Society, Detroit.

December.

44 Overlooked Anomalies of the Eye with Pronounced Nervous Reflexes. A. E. Bulson, Jackson.
45 Case of Late, Posterior, Mesometric Pregnancy. H. W. Longyear, Detroit.
46 Intestinal Antisepsis. S. E. Sanderson, Detroit.
47 Importance of Rectal Exploration in Children. L. R. Thompson, Traverse City.
48 Infant Mortality in Michigan and Detroit with an Inquiry Concerning a Normal Infant Mortality Rate. H. M. Rich, Detroit.
49 Technic of Labor. W. H. Sawyer, Hillsdale.
50 *New Hemorrhoidal Clamp. A. McLean, Detroit.

50. **A New Hemorrhoidal Clamp.**—The body of the instrument devised by McLean is not unlike some clamps already in use. The blades are curved longitudinally, with one inner margin grooved and the other ridged. On the concave surface toward the inner margin of each blade are a number of grooves sloping from without inward, the deepest portion of the groove dipping down two-thirds of the thickness of the blade. When the instrument is closed the grooves of opposite blades come together so as to form a continuous depression. These grooves are about one-eighth of an inch apart and one-eighth of an inch in width. The hemorrhoid is drawn into prominence by forceps or tenacula and the clamp placed at the desired portion of its base and closed. The pile is then removed with curved scissors or knife, following the concave surface of the clamp. The margins of mucous membrane are now stitched together by passing a well-curved needle, with catgut ligature, through each groove. This suture may be continuous or interrupted. If but a few stitches are required the ends of the continuous suture can be brought together and tied as soon as the clamp is removed. These stitches control all hemorrhage, and bring the margins of the wound in close apposition. There is a very small margin of tissue compressed by the clamp and little sloughing follows. McLean says that there is much less pain following this method than when the ligature or cautery is used. The result, he claims, is ideal, as it leaves the tissues in their normal position, without any fear of hemorrhage following, or of cicatrices forming later. This instrument can be used satisfactory for the ligation of any pedicle.

St. Paul Medical Journal.

November.

51 Certain Questions Pertaining to the Operative Surgery of the Lung. C. G. Cumston, Boston.
52 *Pica. J. E. Schadle, St. Paul.
53 Use of Instruments of Precision in the Diagnosis of Unilateral Disease of the Kidney and Ureter. A. W. Abbott, Minneapolis.
54 The Old-time Doctor. H. Neill, Sibley, Iowa.
55 Shock and Its Treatment. G. R. Curran, Mankato, Minn.

52. **Pica.**—Schadle reports the case of a sugar eater, aged 43 years, who consulted him in reference to a spasmodic affection of the throat. At certain intervals the patient suffered from these attacks for a period of three years. The paroxysms were marked by periodicity, usually manifesting themselves during the menstrual epoch. The attacks were often induced by foreign substances coming in contact with the laryngeal structures. The mucous membrane of the buccal and faucial cavities was dry, smooth and markedly red. In fact, the color and general aspect of the tongue, mouth, pharynx and larynx suggested the characteristic local appearances of diabetes. The larynx was also hyperesthetic. Local applications of chlorid of zinc to the larynx were followed by relief. Prior to twelve years ago the patient had an abnormal appetite for acids, and to gratify this desire she indulged in the free use of lemons and sour pickles. In order to get rid of this habit she sought medical advice, and was given a prescription for a bitter concoction which she claims made her very ill. After recovering from the illness thus produced a ravenous appetite for sweets developed, which perverted function she indulged by eating large quantities of sugar. White, granulated sugar she preferred. The habit of eating sugar grew stronger until she finally found that it was impossible to get along without it. By and by natural food was excluded from the diet to the extent that she practically subsisted and depended on sugar. This practice was kept up for twelve years without producing any apparent damage to the system. No fixed time of the day was established for eating the sugar. She ate it almost continuously from the time of rising in the morning until retiring in the evening. The patient consumed on an average about four pounds daily, or, relatively speaking, three-fourths of a ton in a year.

Archives of Pediatrics, New York.

November.

56 *Case of Sepsis in a New-Born Infant. A. Jacobi, New York.
57 Chronic Constipation in Children. H. B. Sheffield, New York.
58 Myotonia Congenita or Thomsen's Disease. F. S. Meara, New York.
59 Etiology of Noma. C. Herrman, New York.
60 Series of Cases of Stomatitis. H. H. Jenks, Philadelphia.

56. **Sepsis in a Newborn Infant.**—In Jacobi's case nothing was noted until the fourth day. Then heavy uric acid infarc

tions were discharged, which lasted until the eighth day, recommencing on the ninth and lasting till the tenth day. A circumcision was performed on the eighth day, with no accident. Purpuric spots of a small size were seen on the extremities on the ninth day. Hematuria appeared on the twelfth day and continued. The baby died on the seventeenth day. The autopsy disclosed a left kidney enlarged to almost twice its natural size, dislodged downward, capsule penetrated with blood, and some clots between capsule and kidney. The upper part of the kidney formed a black, almost uniform looking mass. The right kidney was similarly changed, but to a far less degree. The bacterial cause of the sepsis in this case was not known, although Jacobi thinks that infection may have occurred through the umbilical stump, the cord not having fallen off before the fourteenth day. The dressing employed was boric acid, which he thinks is not a sufficient antiseptic to be applied as a protection to a vulnerable surface like that of the navel.

Journal of Cutaneous Diseases, New York.

November.

61 *Use of Soluble Preparations of Mercury by the Mouth in the Treatment of Syphilis. H. G. Klotz, New York.
62 Case of Lichen Planus Combining Two Rare Forms of the Disease. H. J. F. Wallhauser, Newark, N. J.
63 Antirheumatic Treatment of Psoriasis of the Finger Nails. A. S. Ashmead, New York.
64 Case of Brain Syphilis. J. A. Fordyce, New York.
65 Notes Made During a Recent Visit to the Finsen Institute at Copenhagen. J. A. Fordyce, New York.

61. **Soluble Preparations of Mercury in Syphilis.**—Klotz favors the administration by mouth of soluble preparations of mercury in the treatment of syphilis. He prescribes 15 cg. of the bichlorid dissolved in 100 grams of water. One teaspoonful of this mixture is to be taken three times a day, from one-eighth to one-fifth of a grain of the bichlorid at each dose. As a rule he does not add syrups or aromatics, as these might favor decomposition of the solution; but the patients are always advised to take the medicine diluted with water or milk some time after meals. Klotz does not recommend this method as the exclusive treatment of syphilis, but employs the other methods as well, particularly in hospital practice.

Ophthalmic Record, Chicago.

November.

66 *Clinical Importance of the Diplobacillus of Morax and Axenfeld. H. Gifford, Omaha, Neb.
67 Recovery of Vision in a Non-Squinting Amblyopic Eye Following Injury to Its Fellow. L. Emerson, Orange, N. J.
68 Acute Non-Traumatic Uveitis. H. B. Young, Burlington, Iowa.
69 Fatal Septicemia Due to Ophthalmia Neonatorum. E. W. Stevens, Denver.
70 Sulcus Question for Artificial Eye. J. W. Wamsley, Philadelphia.
71 New Needle Holder for the Ophthalmic Surgeon. M. D. Stevenson, Akron, Ohio.
72 Case of Congenital Corectopia, with Aphakia, and a Case of Congenital Leucoma of the Cornea. H. B. Gratiot, Dubuque, Iowa.
73 Sympathetic Ophthalmitis After Panophthalmitis. H. V. Würdemann, Milwaukee.
74 Eye Clinic at Bonn. Model Ophthalmic Hospital. C. Wood, Chicago.

66. **Diplobacillus of Morax and Axenfeld.**—Gifford claims that this germ has not received the attention in America which it deserves. One reason for this, he says, is the insignificant character of the symptoms which, in the majority of cases, it produces. In the typical diplobacillus catarrh there is only a moderate redness about the inner angle, while the subjective symptoms consist chiefly in an itching which many patients bear with composure. The discharge is so scanty that the lids are not stuck together in the morning, and the bacteriologist is not especially tempted to investigate it. In fact, the appearances in the majority of cases hardly suggest a specific infection of the conjunctiva, but rather a casual irritation. In quite a number of patients the eyes do not look inflamed at all, and the discharge is not in excess of that which one often sees in practically normal eyes; none at all being seen on a casual inspection, but on carefully examining the innermost angle of the palpebral fissure a speck of mucus no bigger than a pin's head can be discovered which is often swarming with the diplobacilli. The subjective symptoms in such cases are often quite misleading, the sole complaint of some patients being that they can not read at night. There are two forms of the disease which without the aid of the microscope must frequently be called trachoma. One of these is the acute form, with rather profuse secretion and marked swelling and roughness of the retro-tarsal folds; and a chronic form, in which the patient presents himself with a set of symptoms such that until one has been put on his guard, a snap diagnosis of chronic trachoma is almost sure to be made on first examination. The eyes are red and watery, half-dry secretions cover the edges of the lids, and retro-tarsal folds are moderately rough and red. The tarsi, however, are but slightly affected. This form occurs chiefly among the poorer classes of Russian Jews and is apparently the product of dirt, neglect and slight eversion or closure of the lower tear points. In the treatment of this affection Gifford employs chlorid of zinc, one grain to the ounce. In the more obstinate cases he uses a 2 per cent. solution.

Colorado Medicine, Denver.

October.

75 A Method for Measuring Venous Blood Pressure in Man. H. Sewall, Denver.
76 Ocular Injuries. M. Black, Denver.
77 Medical Laws and the Influences That Mold Them. S. D. Van Meter, Denver.
78 Silver Salts in Ocular Therapeutics. G. F. Libby, Denver.
79 Deforming Injuries of the Ligaments at the Wrist Connecting with Fractures. G. W. Wiel, Denver.
80 Chemic Composition of Medicinal Plants. E. C. Hill, Denver.

Kentucky Medical Journal, Louisville.

December.

81 *Annual Address of President of the Kentucky State Medical Association, Louisville, October 18, 1905. F. H. Clarke, Lexington.
82 Symptomatology and General Management of Typhoid Fever. O. B. Demaree, Frankfort, Ky.

81.—See abstract in THE JOURNAL, Nov. 4, 1905, page 1430.

Journal of Cutaneous Diseases, New York.

December.

83 Alopecia Areata, as Associated with Nail Changes. G. W. Wende, Buffalo.
84 Treatment of Ichthyosis. G. T. Jackson, New York.
85 Notes Made During a Recent Visit to Christiania and Bergen. J. A. Fordyce, New York.
86 Work Accomplished by the French Society of Social and Moral Prophylaxis. E. L. Keyes, Jr., New York.
87 Treatment of Chancroidal, Herpetic and Varicose Ulcerations by High-Frequency Spark. G. M. MacKee, New York.

Oklahoma Medical News-Journal, Oklahoma City.

December.

88 Judicial View of Insanity Experts. B. F. Burwell, Oklahoma City.
89 Methods of America's Great Surgeons. A. L. Blesh, Guthrie, Okla.
90 Case of Fulminating Appendicitis. A. N. Wiley, Shawnee, Okla.

Interstate Medical Journal, St. Louis, Mo.

December.

91 Plea for Early Operation in Cancer of the Stomach. N. B. Carson, St. Louis.
92 Impressions from a Cursory View of Some Japanese Hospitals. F. A. Glasgow, St. Louis.
93 Maternal Impression Superstition and Why It Survives. E. T. Shelly, Atchison, Kan.

Northwest Medicine, Seattle, Wash.

December.

94 Experience in Obtaining Medical Legislation. F. H. Luce, Davenport, Wash.
95 Status of Medicine in the Cure of Chronic Nephritis. G. S. Peterkin, Seattle.
96 Early Diagnosis of Tuberculosis of Lungs and Pleura. C. Quevli, Tacoma.

Medical Fortnightly, St. Louis, Mo.

December.

97 Water: Its Properties and Uses. I. C. Ballard, Leesburg, Ala.
98 Female Specific Infection—Duty of the Family Physician. J. T. Reddick, Paducah, Ky.
99 Case of Myxedema. L. J. Harvey, Griggsville, Ill.
100 Pelvic Abscess. H. Hart, Quincy, Ill.
101 Nasal Diphtheria. L. D. Brose, Evansville, Ind.

American Practitioner and News, Louisville, Ky.

December.

102 Meningitis. P. F. Barbour, Louisville.
103 Treatment of Enlarged Prostate. J. R. Wathen, Louisville.
104 Nephritis. H. R. Manning, Louisville.
105 Functional Disease. B. F. Zimmerman, Louisville.

Chicago Medical Recorder.

December.

106 Abuse of Privileges of Free Dispensaries and Hospitals. C. D. Pence, Chicago.
107 Dilatation of the Anal Sphincters. C. J. Drueck, Chicago.
108 Commitment of Insane Patients in Cook County, Ill. G. B. Hassin, Chicago.
109 Case of Sporadic Elephantiasis. G. B. Lake, Wolcottville, Ind.
110 Pubiotomy for Selected Cases of Obstruction to Parturition by the Contracting Pelvis. L. J. Pritzker, Chicago.

Virginia Medical Semi-monthly, Richmond.

December.

111 Remarks on Gonorrhea. H. McGuire, Alexandria, Va.
112 Unruptured Tubal Pregnancy of Four Months' Development. J. W. Boveé, Washington, D. C.
113 Surgical Treatment of Nephritis. G. P. LaRogue, Richmond.
114 Resection of the Ileum with End-to-End Approximation by the Connell Stitch. T. M. Parkins, Staunton, Va.
115 Practical Value of Scientific Aids in Diagnosis. W. S. Whitmore, Mt. Sidney, Va.
116 The Physician as a Citizen. C. W. Rodgers, Staunton, Va.
117 Principles of Surgery. S. Mc. Guire, Richmond.

Kansas City Medical Index-Lancet.

December.

118 Case of Coxa Vara Adolescentium. A. E. Hertzler, Kansas City.
119 Lectures on Nervous and Mental Diseases. J. Punton, Kansas City.
120 Ocular Sequela of Diphtheria. J. W. Sherer, Kansas City.
121 Vaccination as a Preventive of Smallpox and Its Legal Status. O. L. McKillip, Kansas City.
122 Congenital Occlusion of the Cervix Uteri. G. B. Norberg, Kansas City.

Medical Standard, Chicago.

December.

123 Pathogenesis of Splanchnoptosia. B. Robinson, Chicago.
124 Internal Hemorrhoids. C. J. Drueck, Chicago.
125 Psychology of Disease. M. M. S. Johnstone, Chicago.
126 Diabetes Mellitus. H. H. Sutton, Aurora, Ind.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal.

December 23.

1 *Modern Fashions on Surgery. J. L. Thomas.
2 Value of the Sigmoidoscope in the Diagnosis Between Primary and Secondary Colitis. P. L. Mummery.
3 Wandering Spleen; Hemorrhage Within the Capsule; Splenectomy; Recovery. C. P. Childe.
4 *Puerperal Eclampsia. R. Dunlop.
5 Surface Tension of Urine in Health and Disease. W. D. Donnan and C. F. Donnan.
6 *Cause of Detachment of the Retina. J. A. Craig.

1. **Fashions in Surgery.**—Thomas favors the wearing by operators of a sterilized over-all, made long enough to prevent the surgeon's hands from coming in contact with his nether garments. The sleeves should be long enough to cover the forearm down to the wrist. The over-all possesses a bib with which the surgeon can cover his mouth and nostrils by slipping the tapes around the ears and tying them under the chin. The bib is necessary for a surgeon who has a long, flowing beard or has a cold, and also to those who can not keep their mouths closed during operations, or who perspire freely. A sterilized cap also is essential, he says, for surgeons who wear long hair, or who are short-sighted, or who go in for motoring. A surgeon, in order to be *de rigueur*, should wear permeable thread gloves which are sufficient protection against a successful invasion by germs of the field of operation in aseptic or clean cases. Thomas also urges that the surgeon protect himself against personal contamination during the examination of patients.

4. **Puerperal Eclampsia.**—Dunlop analyzes 50 cases. Edema was present in 30 cases, but was not a criterion of the imminence of convulsions. One of the most important, because one of the most suggestive and unequivocal, of the prodromal symptoms is pain in the epigastrium. The pain is at first slight, or there may be only a sense of discomfort; but when this symptom is well-marked, it becomes later so intense that the woman is rendered prostrate and is forced to cry out. It may be associated with pain in other regions of the abdomen or in the loins, and may be accompanied by vomiting or difficulty and oppression in breathing. These concomitants are most frequent when the pain has become intense and continuous, and betoken the imminence of convulsions. In all cases a very rapid involution of the uterus took place. In Dunlop's eight personal cases the delivery of the woman stopped the convulsions in one case; in two cases it mitigated the severity of the convulsions, and in four cases had either no effect or a bad one. Of the remaining 42 cases, two patients died undelivered; seven occurred in the puerperium; in twenty-one cases delivery had no effect; in four the convulsions ceased at delivery; in three the convulsions were mitigated after delivery, and in five they were more severe and frequent after than before delivery.

6. **Detachment of Retina.**—Craig reports a case in which, after all other measures failed, he evacuated the subretinal fluid by scleral puncture, using for the operation an ordinary iridectomy knife. The subretinal fluid came away freely, and examination of the eye immediately afterward with the opthalmoscope showed the originally grey detached retina back in position with its pink color restored, the subjective sensation of a grey veil simultaneously disappearing. He followed the puncture by another subconjunctival injection and bandaged the eye firmly with a pressure bandage. In four days the retina again became detached, with return of the subjective phenomena, and he decided again to puncture and, in addition, to apply the galvano-cautery over the seat of operation, with the intention of setting up enough adhesive inflammations of the parts to fasten down the retina. This was done on the twelfth day from the institution of the treatment, and again the immediate effect was completely successful. For eight days after this the retina remained in position, and again the detachment recurred. The former results of the operation had been favorable enough to justify a repetition of the procedure, and this was again done, now near the end of the fourth week from the beginning of the treatment. On this occasion he dissected back a flap of conjunctiva in order to allow the puncture to be made as far back as possible, and the cautery was energetically used. After this no signs of detachment returned. As a precautionary measure, however, he thought it advisable again to apply the cautery at the end of a week in order to cause further inflammatory adhesions. On testing subjectively it was now found that there was a relative color scotoma in that portion of the field corresponding to the seat of the detachment, that is to say, that color sensations as determined by a blue test object were, according to the degree of illumination, confused or quite lost over this area, although the object itself could be seen. Examination of the fundus showed slight opacity and one or two punctate deposits of exudate in the affected portion of the retina. The normal pinky appearance, however, was quite restored. More peripherally the position of the punctures and cauterizations could be easily seen as a deeply-scarred and pigmented surface. The dorsal position was maintained for ten days further and then the patient was allowed to go home. Three weeks later the condition was still found quite satisfactory, central vision (corrected) being 6/6, and the only visual defect being a relative color scotoma over an area of the field extending from the thirtieth to the sixtieth degree in the lower half. On November 16 this scotoma had so improved that the patient could appreciate colors, but blue appeared darker. The patient was last seen by Craig in April, 1905—that is, twenty months after the termination of treatment. Vision was still 6/6, and no sign of detachment could be detected.

The Lancet, London.

December 23.

7 The Albuminuria of Pregnancy and the Kidney of Pregnancy. G. F. Blacker.
8 *Chronic Pancreatitis Probably Starting in an Accessory Pancreas. A. W. M. Robson.
9 *Surgical Treatment of Tuberculous Glands in the Mesentery. E. M. Corner.
10 Carcinoma of the Testicle. A. G. R. Foulerton.
11 Huntington's Chorea and Dementia. R. Jones.
12 *Prevention of Appendicitis. W. J. Tyson.
13 *Raw Meat Alimentation in Tuberculosis. R. W. Philip.
14 *Ventral Fixation of the Uterus by a New Method. W. G. Richardson.

8. **Chronic Pancreatitis.**—Robson's case is interesting because it was unaccompanied by gallstones and was apparently due to an extension of catarrh from the duodenum up the pancreatic duct. The interstitial changes only involved the head of the pancreas.

9. **Tuberculous Glands of Mesentery.**—Corner cites 5 cases. The first case, in a man, aged 41, illustrates the co-existence of atrophic appendix and a large caseous gland in the mesentery of the small intestine. The gland, about the size of a large walnut, was incised and the caseous material removed. The walls were curetted and were then invaginated with silk stitches and the cavity left by the removal of the caseous matter was obliterated. The patient recovered. The second patient had many tuberculous glands in the mesentery compli-

cated by an active appendicitis. The appendix was removed, but the glands were not touched. The third case was that of a boy with whom the diagnosis rested between tuberculous glands in the mesentery and sarcoma. The glands were removed and the patient made a perfect recovery. The fourth case was of particular interest on account of the occurrence of colicky pains. These and the looseness of the bowels suggested a tuberculous enteritis. Although the disease was very extensive, the glands were removed and the patient was very much improved, but still had occasional and unexplained attacks of diarrhea. The fifth case gave every evidence of being one of general miliary tuberculosis; nevertheless the mesenteric glands were shelled out and curetted. The patient improved a little, but after a few days the meningitic symptoms became more pronounced. The patient died in a few weeks, and the necropsy revealed a general miliary tuberculosis.

12. **Prevention of Appendicitis.**—Tyson is of the opinion that careful regulation of the food, both as to quantity and quality, the manner of eating, the avoidance of constipation and a correct method of stooling are important factors in the prevention of appendicitis. He believes that the old-fashioned and natural method of defecating on the ground, with the thighs flexed on the abdominal walls, so that in straining the inguinal and femoral canals are practically closed, is made more conducive to the thorough emptying of the bowel and, therefore, less likely for obnoxious and poisonous materials to be left behind. The practice of kneeling down, bringing the buttocks in contact with the heels, and the anterior chest wall in contact with the thighs, three or four times every morning, is a good and beneficial exercise, which he has practiced for some time past and which he recommends to others.

13. **Raw Meat in Tuberculosis.**—Philip discusses his experience with the use of raw meat in the treatment of pulmonary tuberculosis. His results have been exceedingly satisfactory.

14. **Ventral Fixation of Uterus.**—In order to avoid certain defects in the ordinary procedure of ventral fixation of the uterus, Richardson devised a new method which has yielded excellent results in 12 cases. It is intended for the relief of patients suffering from severe forms of prolapse of the uterus, with cystocele and rectocele, with or without rupture of the perineum. The method is free from the immediate danger of hemorrhage and from the remote danger of long bands of adhesions, and it secures the uterus in its new position in such a way that it can not possibly drop back. The operation is described as follows:

1. Open the abdomen in the middle line from the pubes to the umbilicus.

2. Retract the left side of the wound and take hold of the left round ligament of the uterus, then draw on it until it is tense between the point held and the inguinal canal. Catch it with two clip forceps as near to the inguinal attachment as can conveniently be done and divide it between the clips. Ligature the distal end and remove that clip, dropping the stump. Retain the clip on the proximal divided end.

3. Repeat this on the right side.

4. By means of the two clips on the proximal divided ends of the round ligaments draw the uterus up toward the abdominal wound. Some tension will thus be made on the peritoneal attachments of the round ligaments and, as a rule, the peritoneum will stretch sufficiently to allow the uterus to come up into the wound, even, in some cases, as high up as the umbilicus, but it may be necessary to make a few cuts with the scissors in the edges of the peritoneal attachments, in which case care must be taken not to cut right up into what may be called the "axillæ" of the round ligaments lest any vessels be injured. Lift the uterus by its round ligaments as high up in the abdomen as it will reach without undue tension and with the eye mark the position. In some of the cases of complete procidentia the uterus was purposely left outside the vulva before the abdomen was opened and it came up without any difficulty when drawn on by the round ligaments.

5. At the place to which the fundus of the uterus reaches catch hold of the skin and superficial fascia on the left side of the wound and draw on them, at the same time separating them from the abdominal aponeurosis by thrusting in the handle of a scalpel as far as the outer edge of the rectus abdominis muscle. Withdraw the handle of the scalpel and pass a pair of clip forceps into the track thus made as far as a point one and a half inches from the middle-line incision and then thrust the clip forceps through the aponeurosis, the rectus muscle, and the peritoneum into the peritoneal cavity; with the clip catch hold of the end of the left round ligament and draw it through the abdominal wall, keeping the clip attached.

6. Repeat this on the right side and then by dragging on both round ligaments the anterior surface of the uterus will be seen to come up and to lie against the anterior abdominal wall.

7. Whilst an assistant keeps up traction on both round ligaments and so retains the uterus in its new position sew up all the abdominal wound, except the superficial fascia and the skin, in layers with catgut. Let one or two of the sutures of the peritoneal layer be passed through the peritoneal coat of the uterus and thus occlude the passage between the abdominal wall and the uterus, through which it is conceivable that a loop of small intestine might find its way and so become obstructed if the passage were not closed. It is for that reason only and not for the purposes of suspension that the opposed surfaces of the uterus and the abdominal wall are sutured together.

8. Lay the left round ligament at right angles over the front of the aponeurosis and across the middle line as far as the point at which the right round ligament emerges. Ligature the left round ligament at that point and use the ends of the ligature to sew the ligament to the aponeurosis there. Cut off any redundant ligament.

9. Do the same with the right round ligament and the two ligaments will then lie side by side across the front of the aponeurosis. Additional security is made if a few sutures attach the edges of the round ligaments to one another and also to the aponeurosis, but care must be taken to see that too much of each ligament is not included in each suture lest the blood supply beyond be diminished.

10. Suture the skin and the operation will be completed.

The method is said to possess the following advantages: 1. It is a simple operation in which there is a minimum amount of bleeding and shock. 2. It can be performed rapidly, a point of considerable importance in fat women. 3. There is no fear of hemorrhage from needle punctures of the uterus. 4. Patients have very little pain during the first few days as compared with those on whom the usual operation has been performed. They are able to be moved in bed more easily and, without dragging pain, can lie comfortably on either side. 5. There are no sutures to be removed. 6. There is no fear of the formation of long bands of adhesions. 7. The uterus is permanently held in excellent position.

Journal of Tropical Medicine, London.

December 15.

15 Report on the Dengue Epidemic in Brisbane in 1905.
16 Mouth-parts of Biting Flies. G. M. Giles.

Bristol Medical-Chirurgical Journal.

December.

17 The Family Doctor. J. Dacre.
18 Two Cases of Myasthenia Gravis. J. M. Clarke.
19 Pathology and Treatment of Grave's Disease. R. S. Smith.
20 Voluntary Notification of Phthisis, and the Municipal Attitude in Bristol in Regard to the Disease. D. S. Davies.
21 Study of the Record of One Hundred and Fifty-Five Cases of Operation for Appendicitis .(Continued.) C. A. Morton.

Indian Medical Gazette, Calcutta.

December.

22 First Case of Leishman-Donovan Disease Occurring in a European in Bombay. L. F. Childe.
23 Bacteriocidal Powers of Chlorine and Iodine: Their Application to the Purification of Water on Field Service. V. B. Nesfield.
24 Cataract Extraction in the Capsule. J. C. S. Oxley.
25 Case of Typhoid with a Large Number of Complications. R. H. Castor.
26 Anatomy of Plague Buboes. E. F. G. Tucker.

Glasgow Medical Journal.

January.

27 Treatment of Purulent Otitis Media and Its Complications. J. G. Connal.
28 Gummatous Synovitis of Many Joints, Closely Simulating Rheumatoid Arthritis in a Congenitally Syphilitic Child. J. W. Findlay and J. R. Riddell.
29 Chronic Inversion of the Uterus, Resulting from Carcinoma. J. N. Stark.
30 Acute Exudative Choroiditis, Complete Amaurosis of Two Weeks Duration; Recovery. T. Forrest.
31 Sleeping Sickness in Uganda. E. D. W. Greig.

Presse Médicale, Paris.

32 (No. 90.) *Le séro-pronostic des pleurésies tuberculeuses. P. Courmont (Lyons).
33 *La septicémie des plaies par autoinfection et son traitement par le sérum de cheval chauffé. F. Jayle.
34 (No. 91.) La rhinométrie clinique. M. Lermoyez.
35 Glycosurie alimentaire et syphilis secondaire. A. Paris and A. Dobrovici.
36 L'adrénaline dans le traitement des hemoptysies. A. Martinet.
37 (No. 92.) Pathologie expérimentale et comparée du tube digestif. H. Roger.
38 Alimentation dans les gastro-entérites infantiles. J. Comby.
39 (No. 93.) Technique de l'extirpation des tumeurs malignes du maxillaire supérieur. J. L. Faure.
40 Variations de la composition du lait de femme (of human milk). L. Deval.
41 Representation graphique pratique des aliments et des régimes. A. Martinet.
42 De l'emploi de la scopolamine en obstétrique. A. Laurendeau (Canada).
43 (No. 94.) L'insuffisance nasale. L. Vacher.
44 (No. 95.) L'éducation clinique. F. Guyon.
45 Réseau lymphatique du nez et des fosses nasales (lymphatics of nose). M. André.
46 (No. 96.) Extraction de fragments de sondes brisées dans la vessie. Emploi du cystoscope à vision directe (Broken sound in bladder). G. Luys.
47 (No. 97.) Les épithéliomas en surface des muqueuses leucoplasiques. P. Reclus.
48 Le micrococcus catarrhalis. F. Le Damany.
49 Liste et définition des déviations de l'utérus. F. Jayle.
50 (No. 98.) Les expériences de vaccination antituberculeuse à Melun. J. Masbrenier. See news item on page 50 of THE JOURNAL.

51 *Les syndromes surrénaux (suprarenal). L. Bernard.
52 *Myxedéma et maladie du sommeil (sleeping sickness). A. Lorand (Carlsbad).
53 (No. 99.) Mouvement de la population en France. See news item, page 1895 of last volume of THE JOURNAL.
54 L'olfactométrie clinique. M. Lermoyez.
55 Infarctus hémorrhagique de l'intestin grêle par thrombophlebite mésaraique. A. Mouchet.
56 Examination of Apex of Lung.—Maneuvres de clinique médicale. M. Letulle. (Previous parts in Nos. 94 and 96.) Profusely illustrated.
57 Infection du foie d'origine sus-hepatique (infection of liver from above). Ribadeau-Dumas.

32. **Sero-prognosis of Tuberculous Pleurisy.**—Courmont's research with 115 patients during the last seven years has confirmed, in his opinion, the hypothesis he advanced in 1898 that there is some connection between the agglutinating power of the pleural effusion in tuberculous pleurisy and the evolution of the disease. The mortality is about 25 per cent. of those individuals with agglutination and 75 per cent. among those whose pleural fluids fail to agglutinate. The proportion of recoveries is higher, the more pronounced the agglutinating faculty. Agglutination, he thinks, is a reaction of defense, or at least it parallels the defensive reactions of the organism. Its intensity is in inverse proportion to the gravity of the disease.

33. **Septicemia from Autoinfection Treated with Hot Horse Serum.**—Jayle describes 2 cases of septicemia resulting from endogenous infection. A laparotomy was performed on one patient who had long had a chronic suppuration in the pelvis, complicated recently with intestinal obstruction. The laparotomy wound became gangrenous. Gangrene also developed in the second case; the patient was a young man with a traumatic retroperitoneal hematoma that had become infected from the intestines. The condition of each patient was very serious, and the same micro-organisms were found in the gangrenous wounds as had been cultivated from the fetid pus removed during the operation. There was almost total absence of leucocytes in the wounds. Recalling the claims made by Petit in regard to the leucocyte-attracting power of hot horse serum, Jayle dressed the wounds with this, and found its local effect absolutely perfect. The large gangrenous wound was cleansed with peroxid of hydrogen and then dressed with wicks soaked in 90 gm. of horse serum and two tubes of the desiccated serum. The serum was applied hot, morning and night, and by the fourth day there was no longer any fetid odor and recovery progressed rapidly. He adds, in conclusion, that patients with putrid septicemia generally die from heart failure; consequently it is of the utmost importance to sustain the heart. He used caffein (1 gm. in the twenty-four hours), camphorated oil (1 or 2 gm. of a 1 to 10 solution every three hours), ether and artificial serum. Not more than 1 or 1.5 liter of the artificial serum should be injected during the twenty-four hours. The defective permeability of the kidneys and the dilatation of the right heart should be the guide for these measures. If the heart is dilated, 100 gm. of blood should be withdrawn before injecting 500 gm. of the artificial serum. If the kidneys are not acting, he recommends an injection of pilocarpin.

51. **Suprarenal Syndromes.**—Bernard uses the term "hyperepinephrie" to designate excessive functioning of the suprarenal glands, while "hypoepinephrie" indicates insufficient functioning. Each has its syndrome, and there is also the Addisonian syndrome. He describes them all in detail, emphasizing the conclusions from recent researches to the effect that excessive functioning is sometimes the origin of arterial hypertension, with its train of consequences. Josué found that repeated injections of adrenalin induced the development of atheromatous lesions in the aorta of animals. Vaquez also ascribes to excessive functioning of the suprarenals the transient arterial hypertension observed in the course of acute affections, such as lead colic and eclampsia, also the oscillating or unstable hypertension sometimes observed, and the permanent hypertension which accompanies chronic affections, such as interstitial nephritis or lead poisoning. This conception rests on two hypotheses, namely, that a series of phenomena attributed to other causes are, in reality, due to exaggerated arterial tension, and, further, that excessive functioning of the suprarenals is the cause of increased tension. Further research is needed in this line. Defective functioning of the suprarenals causes a syndrome characterized by asthenia, arterial hypotension, and various nervous and digestive troubles. The latter are generally repeated vomiting, accompanied by obstinate constipation, or there may be a choleriform diarrhea, especially in children. This syndrome may appear in an acute, subacute or chronic form. The Addisonian syndrome includes (1) melanodermia and possibly certain painful and digestive phenomena, constituting the sympathetic syndrome; (2) the syndrome of suprarenal insufficiency in its chronic form, complicated by the syndrome of defective functioning of the suprarenals, and (3) general symptoms due to primary cause. In a later article he proposes to discuss the share of these syndromes in inflammation and tumor of the suprarenals and in syphilis and tuberculosis.

52. **Myxedema and Sleeping Sickness.**—Lorand ascribes sleeping sickness to the degeneration of the thyroid gland under the influence of the toxins of the trypanosoma.

Semaine Médicale, Paris.

58 (XXV, No. 51.) *Les causes de la paralysie complète du nerf laryngé inferieur ou recurrent. E. Felix (Bucharest).

58. **Causes of Paralysis of Inferior Laryngeal or Recurrent Nerve.**—Felix reviews the long list of causes which may induce complete paralysis of the inferior or recurrent laryngeal nerve. The list is a long one, from affections of the heart and large vessels, tumors in the mediastinum, esophagus or thyroid gland to affections of the respiratory organs as local causes, also causes acting from a distance, such as affections of the brain or medulla. The list concludes with chemical or microbian intoxications as general causes. The most frequent causes, however, are tabes, aneurism of the aorta and tracheo-bronchial adenopathies, which should always be suggested by the discovery of recurrent paralysis.

Berliner klinische Wochenschrift.

59 (XLII, Ewald Fest-Nummer, No. 44a.) *Judgment of Infectious Processes by Determination of Chlorids, Nitrogen and Volatile Fat Acids.—Zur Beurteilung infektiöser Prozesse, etc. E. v. Leyden and F. Blumenthal.
60 Die klinische Bedeutung der fettigen Degeneration des Herzmuskels anämischer Individuen (fatty degeneration of heart in anemic individuals). F. Kraus.
61 *Lage und Gestalt des Magens unter normalen und pathologischen Verhältnissen (shape and position of stomach). E. Ponfick.
62 Hydrotherapie bei Magenkrankheiten (gastric affections). Brieger.
63 Beschaffenheit des Harns und den Stoffwechsel im Tetanus (urine and metabolism in tetanus). H. Senator.
64 Zur Antithyreoidin-Behandlung der Basedow'schen Krankheit. A. Eulenburg.
65 Ueber Thrombose der Mesenterial-Gefässe (vessels). H. Lindner.
66 *Sources of Error in Examining Stomach Content.—Ueber einige Fehlerquellen der Mageninhaltsuntersuchung. I. Boas.
67 Ueber die praktische Bedeutung der Romanoskopie. Th. Rosenheim.
68 Are the Proteolytic and Milk-Coagulating Effects of Gastric and Pancreatic Juice Due to One and the Same Enzyme? J. C. Hemmeter (Baltimore).
69 Die Funktion der Nodull Arantii. J. R. Ewald.
70 *Sur la question du diabète rénal. R. Lépine.
71 Familiäres Vorkommen von Akromegalie und Myxödem auf luetischer Grundlage. P. K. Pel.
72 Ueber die Radium-Behandlung des Oesophagus-Krebses (cancer). M. Einhorn (New York).
73 *Fall von Abdominaltyphus unter aussergewöhnlichen Umständen. W. Kernig.
74 *Zur Frage der Nährklystiere (nutrient enemata). H. Strauss.
75 *Zur klinik des Gastrosuccorrhœ (Fälle von famillärem Magensaftfluss). M. Pickardt.
76 *Ist die Arteriosklerose eine Allgemeinkrankheit (constitutional affection). Bäumler.
77 *Care of the Health in Cholera Times.—Oeffentliche und häusliche Gesundheitspflege besonders in Cholerazeiten. G. Meyer.
78 *Fermentation Test for Sugar in Urine.—Ueber die Gärungsprobe zum Nachweis von Zucker im Harn. E. Salkowski.
79 *Ueber den Missbrauch medikamentöser Abführmittel bei habitueller Obstipation (abuse of purgatives). C. Jürgensen.
80 Phosphorus Poisoning and Atrophy of Liver.—Phosphorvergiftung und Leberatrophie. L. Riess.
81 Physiologische Stigmata körperlicher Degeneration. A. Albu.
82 *Zur Behandlung des Diabetes insipidus. C. Posner.
83 Gastritis chronica cum Achylia gastrica bei Lungenphthisis. K. Faber (Copenhagen).
84 Schilddrüse und Thymus bei der Basedow'schen Krankheit (thyroid and thymus). D. v. Hansemann.
85 Utilization of Glucosamin.—Verwertung des Glukosamins im Tierkörper. R. Bial.
86 4 Fälle von Botulismus. Collatz.
87 *Zur Pathologie der Jackson-schen Epilepsie und zu ihrer operativen Behandlung. F. Krause.
88 Zur Frage der Frühoperation der Perityphlitis (early operation). W. Ball.

89 Zur Kenntnis der acuten Pankreas-Erkrankungen. L. Wrede.
90 Affection of Cecum.—Zur Klinik der Coecum-Erkrankungen. Dege.
91 Ueber pylephlebitische Leber-Abscesse (in liver). E. Heymann.
92 *Excessive Secretion of Gastric Juice. Ueber Magenschleimfluss (Gastromyxorrhœ). L. Kuttner.
93 *Zur Kasuistik der Bronchus-Gallengangs-Fistein. F. Eichler.
94 Fall von Ulcus pepticum jejuni nach Gastroenterostomie. A. Jahr.
95 Zur Frage des Emotions-Icterus. P. Weiss.
96 Ueber palpable Nieren bei Kindern (kidneys in children). O. Blum.
97 Determination of Lab Ferment.—Ueber eine neue Methode der Labbestimmung und ueber das Verhalten des menschlichen Magenlabs unter normalen und pathologischen Zuständen. U. Blum and E. Fuld.
98 Large Intestine Superposed on Enlarged Spleen.—Die Ueberlagerung der vergrösserten Milz durch den Dickdarm. R. Oestreich.
99 Fall von malignem Hypernephrom bei einem Kinde (in child). W. C. MacCarty.

59. **Judgment of Infectious Processes by Determination of Chlorids.**—The findings in a case of puerperal sepsis and in two of pneumonia are tabulated, the daily record of the elimination of nitrogen, chlorids, volatile fat acids and the amount of urine, with the temperature. The volatile fatty acids, the authors state, increase enormously when a pneumonic exudate is being reabsorbed, also the amount of chlorids. The increase in the latter is also characteristic of reabsorption of edema, but the fatty acids do not increase in this case. Convalescence in pneumonia is indicated by the balance between the chlorids and nitrogen, showing that the organism does not retain a large proportion of the nitrogen to make up the deficit in the tissues, as in a long wasting disease. When the fatty acids return to the normal figure, it may be assumed that the reabsorption of the exudate is completed.

61. **Shape and Position of Stomach.**—Ponfick asserts that the stomach lies perpendicularly in by far the larger majority of normal persons. In case of affections of the surrounding organs crowding on the stomach, it seeks the position which will interfere the least with its functions. This results in its assuming most remarkable positions in some cases, as it has a wide play in its normal range of movement.

66. **Sources of Error in Examining Stomach Contents.**—Boas thinks that the test breakfast is a much more reliable means of investigation than the test meal, for reasons which he enumerates. The original test breakfast is 1 roll (about 35 gm. in weight) and 400 gm. water or the same amount of tea without any addition, the stomach contents to be withdrawn exactly one hour afterward. The first test breakfast should be preceded by ascertaining whether or not the stomach is actually empty. Neglect of this preliminary examination is liable to nullify the results of the test. Unless the test breakfast is given in the morning as the first meal, the findings are also liable to be misleading. The variations in the secretions at different times must also be taken into account, especially those during menstruation, so that a single examination seldom affords a decisive oversight of the conditions. Another source of error is in the composition of the fasting stomach content in case of retention. It is wise in such cases to determine both qualitatively and quantitatively the proportions of lab and pepsin, as well as of hydrochloric acid. Pathologic lactic acid fermentation is generally accompanied by loss of these enzymes, and knowledge of this may explain dubious conditions. Another source of error is the presence of bile, blood, mucus or saliva in the stomach content. Quantitative determination of the hydrochloric acid is impossible under these circumstances, and qualitative tests are decisive only when they are positive. The reflow of bile into the stomach in case of deep stenosis of the duodenum has a marked influence on the acidity of the stomach content. Tests for gastrosuccorrhea are liable to be misleading, as the preliminary rinsing is apt to induce a reaction in the way of secretion, and as it is impossible to be sure that all the liquid introduced has been taken out. Determination of the acidity of stagnating stomach contents and also of the secretions in the fasting stomach is of little diagnostic value. Boas further argues that the presence of normal or increased hydrochloric acid, with only few remains of the test breakfast, is evidence that the motor function of the stomach is comparatively unimpaired, but, on the other hand, when the stomach is found still more or less full, we have no right to conclude from this that the motor function is defective. This conclusion is justifiable when the proportion of hydrochloric acid is abnormally small, with as much as 150 or 200 c.c. of stomach content, unless it is evident that there are no remains of the food in the fluid. He doubts the practicability and reliability of the new methods of stomach testing that have been introduced, and regards the old Leube method as still superior. The only drawback is that two or even three examinations with the sound are necessary to obtain unmistakable results. If a better method should be discovered, it would be wise to combine it with the test breakfast, which has stood the test of time and experience and conforms to the customs of all civilized lands. It is free from the drawbacks of the test meal, especially the interference with the tests for "occult hemorrhage" by the presence of the beefsteak in the stomach.

70. **Renal Diabetes.**—Lépine relates experiments with dogs and clinical experience which confirm the existence of a toxic glycosuria (with phloridzin) of renal origin. He is inclined to believe that there may be also a nervous glycosuria due to some (vascular) renal process. The existence of a renal diabetes in man, according to Klemperer's theory, is not irrational, but no absolutely convincing cases have been reported to date. He has had several patients under observation for years in whom glycosuria alternated with phosphaturia.

73. **Typhoid Fever Plus Shot Wounds of Abdomen.**—The patient was a young woman who was shot in the abdomen, the injury requiring resection of the ileum for 98 cm., or about a yard. The course of the case showed that the injury had been received during the onset of typhoid fever. An epidemic of typhoid fever prevailing at the time was of an unusually severe type, but the disease was very mild in this case, possibly owing to the fact that the part of the bowel removed was exactly the part generally affected by the typhoid process.

74. **Nutrient Enemata.**—The experiences related by Strauss indicate that Wernitz's technic has superior advantages. The enema is given very slowly with large amounts of fluid under very slight pressure. The tube has a shoulder, which prevents its slipping out of the anus, and a stopcock which is turned so that only a drop at a time enters the rectum. A quart of the fluid is thus given in the course of an hour under pressure of about 27 cm. Fifty enemata were given in this way, and all were retained for three or four hours or longer, and more than half of the nourishment thus given was refound in the stools. Two patients received twelve and fourteen of these enemata in the course of a week without irritation of the rectum. His formula is 1 l. water, 25 gm. of an easily soluble albumin, 50 gm. grape sugar, 50 gm. cream and a little salt, with .2 gm. menthol or .5 gm. thymol or 1 gm. salicylic acid. His research on the precipitins after ingestion of albumin showed that there is no elimination in the urine of unpredigested albumin given in an enema.

75. **Family Gastrosuccorrhea.**—A mother and two sons, 16 and 18, respectively, began about the same time to present symptoms indicating gastrosuccorrhea, and the objective findings confirmed the diagnosis. No organic affection of the stomach could be detected in any of them.

76. **Is Arteriosclerosis a General Affection?**—Bäumler presents extensive arguments to sustain his view that the general affection observed in case of arteriosclerosis is secondary. The primary trouble, he thinks, is the disturbance in metabolism. At first it has nothing to do with arteriosclerosis, but is due mainly to nephritis of various origins. The consecutive disturbances in the circulation, he believes, are responsible for the arteriosclerosis.

77. **Anti-cholera Education of the Public.**—Meyer preaches the necessity for enlightening the public, but he distinctly warns against telling the layman things on which there is still a difference of opinion among scientists. Half-knowledge should be reserved for discussion in scientific circles, and the layman should be informed only in regard to useful things about which there can be no question. He quotes extensively from official and medical regulations during cholera epidemics in the early part of the last century.

78. **Fermentation Test for Sugar in Urine.**—Salkowski men-

tions a number of points which should be borne in mind in this test. The result of the test must be positive with sugar to .1 per cent. There must be no apparent positive effect in urine free from sugar. If the urine becomes ammoniacal at the close of the test it is a failure. Ammoniacal urine should be boiled before attempting the test. This is usually followed by an acid reaction. The fermentation test is not reliable with urine containing blood, pus, albumin or albumoses. Salkowski's technic consists in adding a scrap of compressed yeast (about .7 gm.) to 15 c.c. of urine in a conical glass, stirring gently and then pouring the fluid into a test tube, closing the outlet by pouring mercury into the bend, setting the tube aside for from twenty to twenty-two hours at a temperature not less than 30 or over 38 C.

79. **Treatment of Habitual Constipation.**—Jürgensen thinks that habitual constipation should be treated by hygienic measures, aiding Nature, rather than by drugs. If a purgative has to be given regularly it should be one that merely helps to empty the bowels without altering the consistency of the stools or causing by-effects of any kind. He gives several prescriptions which have answered the purpose finely in his experience, preferring an herb tea infused for fifteen minutes, two cups taken with fifteen minutes' interval, half an hour before breakfast. One of his formulas for the herbs is equal parts of flor. tiliæ, flor. sambuci, flor. chamomillæ, herb, menthæ piperitæ, and rhiz. valerianæ. About two tablespoonfuls for the two cups of boiling water.

82. **Treatment of Diabetes Insipidus.**—Posner describes the great benefit obtained in a neurasthenic woman presenting symptoms of diabetes insipidus when she was instructed to chew ordinary chewing gum or its equivalent. The thirst and the excretion of urine were notably reduced, while the urine became more concentrated. Prolonged chewing with the increased salivation is evidently an important aid in the treatment of polydipsia and polyuria.

87. **Operative Treatment of Jacksonian Epilepsy.**—Krause reviews his experience on this subject—12 operations—and on the electric diagnosis of cerebral disturbances. His article is profusely illustrated. In one case the evacuation of an encephalitic subcortical cyst cured epilepsy and mental impairment of long standing in a girl of about 15; the cure has been complete for twelve years to date. Faradic testing of the cortex in the operating room is an indispensable aid in locating the lesion. In one instance it showed exactly the spot at which to look for the tumor. Six cases are described in detail. In one of severe, typical epilepsy, the centers for the finger, hand, forearm and lower part of the face were involved. On exposing these centers nothing abnormal was found, but faradization of the arm center caused an incipient epileptic seizure. The part of the brain containing the above-mentioned centers was resected, the excised part measuring 23 by 15 by 20 mm., and to a depth of at least 5 mm. There have been no seizures since, and the patient is able to attend to a large business, although he occasionally feels a little twitching or cramp in a limb. Among the 12 patients operated on, 2 patients died. In one instance the fatal termination might possibly have been averted by operating at two or more sittings. The other patient suffocated in an epileptic seizure. Recurrence is more probable, Krause thinks, in the cases in which nothing pathologic can be found.

92. **Treatment of Excessive Secretion of Gastric Juice.**—Kuttner applies the term gastromyxorrhea to a condition in which large amounts of gastric juice are secreted by the fasting stomach, even although there may be merely the normal or a lesser proportion during digestion. An acute attack requires prompt lavage of the stomach which will sometimes abort it. Morphin seems to be the only effectual drug. The nervous condition should be treated with general measures, hygienic and tonic. The chronic affection requires frequent rinsing of the stomach. A course of mineral waters may prove effectual in some cases. The results of treatment have not been very encouraging in his experience.

93. **Broncho-Biliary Fistula.**—Eichler adds another to the 12 cases he has found in the literature, with an illustration of the postmortem findings in his case.

Deutsche medicinische Wochenschrift, Berlin and Leipsic.

100 (XXXI, No. 46.) *Influence of Emotions on Gastric Secretions.—Experimentelle Untersuchungen über den Einfluss von Affecten auf die Magensaftsekretion. A. Bickel.
101 *Zur Chemie des leukämischen Blutes (chemistry of blood). O. Schumm.
102 Ueber die Spirochæte pallida Schaudinn. B. Lipschütz.
103 *Cystoskopie und Lithotripsie in verschiedenen Körperlagen (in different positions). O. Ringleb.
104 Acute Poisoning of Buccal Mucosa with Iodin.—Akute Vergiftung der Mundschleimhaut durch Iodtinkturpinselungen. A. Witzel.
105 (No. 47.) *Results of Scientific Trip to East Africa.—Vorläufige Mittellungen über die Ergebnisse einer Forschungsreise nach Ostafrika. R. Koch.
106 Die diagnostische und therapeutische Bedeutung der Lumbal-Punktion. H. Quincke. (Concluded.)
107 *Morbidly High Arterial Pressure.—Ueber die krankhafte Erhöhung des arteriellen Druckes. L. Krehl.
108 *Die chirurgische Behandlung von Krankheiten des Gehirns. F. Krause.
109 *Die geburtshilfliche Behandlung bei Placenta prævia. H. Fritsch.
110 *Ueber die symptomatische Bedeutung der Blutungen aus den weiblichen Genitalien und deren Behandlungs-Grundsätze. A. Döderlein.
111 *Grundzüge einer Therapie der akuten Verdauungsstörungen des Säuglingsalters (infantile digestive disturbances). C. Hochsinger.
112 *Fall von akutem angioneurotischem Oedem. D. Herter.
113 Physicians' Accounts and Records.—Ueber ärztliche Buchführung. Hundeshagen.

100. **Effect of Emotions on Gastric Secretions.**—Among the interesting experiments related by Bickel is one in which a dog with a Pawlow fistula and opening into the esophagus was worried by a cat while he was eating. The curves showing the amount of gastric juice secreted during sham feeding ranged usually between 100 and 190 during the hour following the sham feeding, gradually declining to 80 by the end of the second hour. When a cat was brought in a cage into the room and placed beside the dog while he was being fed, he became very much excited and angry, and only 20 c.c. of gastric juice were secreted during the first five minutes afterward. Examination at five-minute intervals showed that the secretion grew constantly less and less to practically zero by the end of half an hour. In another experiment the cat was not brought in until about half an hour after the sham feeding. The amount of gastric juice secreted had risen from 120 to 275 during this period, but in the next five-minute period, after the dog had been teased by the proximity of the cat, only 20 c.c. of gastric juice was secreted, and during the following hour the amount never increased beyond 60 c.c. The curves show, further, that, although the amount of the gastric juice was thus influenced so decidedly by the emotional disturbance, the digestive power of the juice remained at about the same level, horizontal during the tests, as well as during the undisturbed feeding. Bickel calls attention in particular to the fact that this inhibiting effect of an emotion on the gastric secretion persisted even after the cause for the emotion had been removed. The cat was only left in the room a few minutes, but the gastric secretions were evidently permanently checked for the time being by the dog's temporary excitement.

101. **Chemistry of Leukemic Blood.**—Schumm calls attention to an albumin-splitting ferment resembling trypsin in the blood in cases of lienal myelogenic leukemia.

103. **Cystoscopy and Lithotripsy in Different Positions.**—Ringleb gives illustrations of a table which allows a patient to be catheterized while lying face downward. There is a semicircular recess in the lower end of the table which allows the catheter to be inserted readily in this position. It offers several advantages, as he describes. He calls it the "under the abdomen position," and commends it also for lithotripsy. He also advises changing the position to aid in catheterization.

105. **Results of Koch's Year of Research in Eastern Africa.**—The main results of Koch's scientific trip to Africa were summarized in the news columns on page 1888 of the last volume of THE JOURNAL. In this article there are twenty-four illustrations showing the various forms in which the spirillum of relapsing fever was encountered in ticks, the development of the protoplasma bigeminum (of Texas fever), and of the germ of "coast fever" in cattle, and of the trypanosoma and tsetse-fly. He found that the tsetse-fly disease is transmitted by the *Glossina pallidipes* and *fusca*, as well as by the *morsitans*. It has proved impossible hitherto to infect the glossina by allow-

ing it to feed on animals having trypanosomas in the blood from recent infection. The flies did not become infected until the cattle had been infected for some time, and their blood contained only a comparatively small number of the germs. Koch thinks that this shows that not all trypanosomas circulating in the blood are capable of infecting the tsetse fly. They must be in some certain, and to us still mysterious, condition before they can transmit the infection. This condition may occur in wild animals. He has found infected flies at points where they probably could only have become infected from wild antelopes or buffaloes. The trypanosoma passes through a certain phase of its development in the body of the glossina.

107. **Morbidly High Arterial Pressure.**—Krehl regards the higher arterial pressure in nephritis as a compensating measure to insure the elimination of urine-forming substances. If it is possible to reduce the formation of these urine-forming substances, then the arterial pressure will spontaneously subside. This is the explanation for the benefit from a milk diet in nephritis. When nothing is ingested but milk, the arterial pressure rapidly sinks. In impending uremia, repose, dieting, sweating, and blood-letting will relieve the organism of a certain proportion of the urine-forming substances which it is seeking to eliminate by increased arterial pressure. These measures should be supplemented by others to strengthen the heart if necessary to enable it to aid in this elimination. The high arterial pressure is needed in granular atrophy of the kidney to compensate the defective functioning, and our aim should be to reduce this task to the minimum. It is unwise and dangerous to think that we must always strive to reduce by direct means the high arterial tension in all cases. It is fortunate that Nature resists such measures so obstinately.

108. **Surgical Treatment of Brain Affections.**—Krause describes in detail the present status of operative treatment of abscesses in the brain, traumatic epilepsy, tumors and injuries, with the indications for special technic.

109. **Placenta Praevia.**—The points specially emphasized by Fritsch are that the tampon should be applied with the patient lying on her side, with the bladder and the rectum emptied. The genitalia must be disinfected frequently and the vulva washed off repeatedly before, during and after the tamponing with cotton soaked in a reliable disinfectant. By repeatedly washing off in this way the parts are kept comparatively sterile. The best instrument for introducing the tampon is the hand. The hand of a cautious obstetrician is less dangerous than a metal dilator. It is possible sometimes slowly to dilate the os with the fingers and to push it back over the head of the child without lacerating it in the least. He gives a number of other points to be borne in mind and describes the technic he prefers.

110. **Bleeding from Female Genitals.**—Döderlein expatiates on the necessity for adapting treatment to the cause inducing the hemorrhage. Any bleeding after definite cessation of menstruation should be regarded as pathognomonic of cancer. A myoma does not induce hemorrhage directly, as a rule, but it is the cause for long persistence of menstruation and for severe bleeding at the periods. Bleeding from the genitals between the ages of 15 and 45 is not characteristic of any special affection, but indicates some gynecologic disturbance which should be differentiated.

111. **Infantile Digestive Disturbances.**—Hochsinger concludes this postgraduate lecture with the remark that to date we have no causal therapy, in a chemico-bacteriologic sense. The Breslau school regards the albumin in the milk as of little moment, while Biedert and his school consider it the main factor in infantile digestive disturbances. The safest way is to withdraw all or nearly all food from the child and then to resume it very slowly and by degrees, watching the effects.

112. **Acute Angioneurotic Edema.**—In Herter's case the edema developed always after midnight, reached its maximum toward morning and then gradually subsided during the forenoon. The patient was an otherwise healthy woman of 69. The edema was restricted to the lower part of the face and tongue. The attacks have recurred at intervals of a few weeks or months during the last eight years.

Deutsche Zeitschrift f. Chirurgie, Leipsic.

Last indexed XLV, page 1912.

114 (LXXIX, Nos. 1-3.) *Congenital Obstruction and Constriction of Alimentary Canal in light of Embryology.—Die angeb. Verschliessungen und Verengerungen des Darmkanals im Lichte der Entwicklungsgeschichte. E. Kreuter.

115 Ueber Entstehung und Wesen des arteriellen Collateral-Kreislaufes (circulation). A. Bier.

116 Zur Kenntnis plastischer Operationen am Nierenbecken bei Hydronephrose (operations on renal pelvis). A. Läwen. (Trendelenburg's clinic, Leipsic).

117 Atypical Conditions in Sacral Region.—Atypische Verhältnisse in der Steissgegend menschlicher Foeten und eines Neugeborenen. H. A. Thaler.

118 *Foreign Bodies in Male Urethra and Bladder.—Ueber Fremdkörper der männl. Harnröhre und Blase. J. Englisch Vienna.

119 *Length of Life and Vitality of Cells of Epidermis.—Exp. Studien über Lebensdauer und Lebensfähigkeit der Epidermiszellen. L. Burkhardt.

120 Neubildung von Lymphdrüsen beim Mammacarcinom (neoformation of lymph glands). C. Ritter.

121 Ueber penetrierende Thorax-Verletzungen (penetrating injuries). E. Halm.

122 Penis-Carcinom bei einem 2-jährigen Kinde (in child of 2). Creite.

123 Heilung eines Falles von penioscrotaler Hypospadie nach der I. Beckschen Methode. A. Martina.

124 Stomach as Contents of a Hernia in Right Diaphragm with Secondary Protrusion into the Abdominal Cavity, Simulating pyonephrosis.—Der Magen als Inhalt, etc. Hamdi.

125 Fall von geheilter, traumatische intra- und extraperitonealer Blasen-Ruptur (of bladder). Maeder.

114. **Congenital Obstruction and Stenosis in the Alimentary Canal of the New Born.**—Kreuter shows by his embryologic studies that the lumen of the fetal alimentary canal is liable to close up by cell proliferation from the fourth to the tenth week as a process of development. When stenosis is observed in the new born it is the abnormal persistence of this embryonal process. He has been able to find reports in the literature of 111 cases of atresia of the esophagus, 8 of the stomach, 5 of the duodenum, 103 of the jejunum or ileum, and 33 of the rectum. He completes his extensive article with a number of plates illustrating the embryonal process described.

118. **Foreign Bodies in Male Urethra and Bladder.**—The literature of 750 cases is reviewed by Englisch after report of 10 cases from his own experience. The results were more favorable when the foreign body was in the urethra, as only 7 deaths occurred in 181 of these cases, while the mortality was 30 deaths in 625 bladder cases (mortality, 3.87 per cent. and 5.86 per cent., respectively). Spontaneous expulsion occurred in 4.28 per cent. of the bladder cases and in 3.31 per cent. of the urethra cases. It is easier to crush a foreign body in the bladder than in the urethra (10.58 per cent. and 2.2 per cent., respectively). Foreign-body operations on the urethra have a mortality of 2.17 per cent.; on the bladder, 8.17 per cent. High incision gave the best results and lateral perineal incision the poorest, the mortality being, respectively, 1.66 per cent. and 10 per cent., while that of the median perineal incision was 4.44 per cent. When the foreign body is incrusted, unless it can be broken up and removed in fragments, operative treatment insures the best results, much better than prolonged attempts at instrumental extraction. Scraps of bone have frequently been spontaneously expelled from the bladder, but pieces of a catheter usually cling to the bladder wall and are seldom spontaneously expelled. Experience has abundantly demonstrated that if a foreign body in the urethra or bladder is not removed it is almost sure to entail inflammation, gangrene or a fistula, generally leading to fatal pyemia. Spontaneous expulsion has been known to follow injection of oil into the urethra, also after closing the outlet when urinating, the accumulating urine washing out the foreign body, especially when the passage has been previously stretched to its utmost capacity by introducing a large sound as far as the foreign body. Less than a dozen cases of such spontaneous expulsion are on record. Twenty-seven kinds of foreign bodies were found in the 750 cases reviewed, a piece of a catheter in 220, hat pins in 41, pieces of bone in 59, knitting needles in 32, bullets in 24, wax candles or tapers in 21, pencils in 12, and paraffin, wads of hair or fiber in 5 each. The age of the patients ranged from under 5 to over 80. The monograph fills 89 pages.

119. **Length of Survival of Epidermis Cells.**—Burkhardt announces that epidermis cells retain their vitality unimpaired for several days. His experiments were made on dogs; the

conditions are more favorable in man. The cells require oxygen and asepsis to keep perfectly. They should not be kept in a fluid, as this macerates them; neither should they be allowed to dry out completely. The vessel in which they are kept should not be air-tight. The best results were obtained with scraps kept warm and moist. They retained their normal aspect and elasticity.

Münchener med. Wochenschrift, Munich.

126 (LII, No. 44.) *One-day Pneumonia.—Ueber eintägige Pneumonien. A. Bechtold.
127 Bakteriologische Untersuchungen bei einer Paratyphus-Epidemie. A. Schottelius.
128 Oxidation by Fluorescent Substances in Light and Changes in Bleaching.—Ueber die Oxydation durch fluoreszierende Stoffe im Lichte und die Veränderungen derselben durch die Bleichung. H. v. Tappeiner.
129 *Zur Kasuistik der Milzverletzungen und deren Therapie (injuries of spleen). P. Graf.
130 *Eine neue Penis-Klemme (clamp). A. Strauss (Barmen).
131 Temperature of Skin.—Ueber Hauttemperatur-Messungen. Grünenwald.
132 Zum Studium der Komplemente. H. Lüdke.
133. Official Care of Infants in Hungary. Staatliche Säuglingsfürsorge in Ungarn. A. Szana.
134 (No. 45.) Origin of Glycocol in Hippuric Acid.—Herkunft des Glykokolls in der Hippursäure. A. Magnus-Levy.
135 Multiple Sklerose unter dem Bilde der Myelitis transversa (simulating myelitis). B. Morawitz.
136 *Fall von Doppel-Sepsis (double sepsis). C. Stäubli.
137 Ueber epidemische Genickstarre (meningitis). Jacobitz.
138 *Ueber Cytorrhycten-Befunde. Jancke (Berlin).
139 *Zur Verhütung des Puerperal-Fiebers. Lingel.
140 Weight-Bearing Test of Lungs.—Zur quantitativen Lungenluftbestimmung durch die Belastungsprobe nach Prof. Dr. Stumpf. F. Schroen.
141 Length of "Carlsbad Cure" for Gallstones.—Ueber die Dauer des Kurgebrauches in Karlsbad beim Gallensteinleiden. E. Hertzka.

126. **One-Day Pneumonia.**—Bechtold states that out of 1,057 cases of pneumonia at the Würzburg clinic, 10 were what might be called "one-day" pneumonia. The chill, high fever and crisis were observed in all, but the percussion and auscultation findings differed materially. The sputum was rusty in only one case, but traces of bright red blood were visible in another. Four of the patients were far from being robust, and these cases seemed to be due to a mild house contagion, all occurring close together in one ward.

129. **Injuries of Spleen.**—Graf relates the particulars of 3 cases of injury of the spleen, bullet wounds in 2 and laceration in the other case, which terminated fatally from internal hemorrhage. The spleen was removed in the other patients. One was a man of 66, and the remarkably slow recovery was a noticeable feature. It seemed as if the lack of regeneration of the blood from the absence of the spleen retarded convalescence. An accessory spleen was found in the other patient, a young man of 27, and his prompt recovery may have been facilitated by the presence of this compensating organ. The blood findings were quite normal by the eighth week.

130. **Clamp for Penis.**—The clamp described in this article is to take the place of the fingers when closing the lumen of the urethra to prevent reflux of medicinal fluids introduced.

136. **Double Sepsis.**—Stäubli cultivated the *Streptococcus longus* from the case of sepsis reported, but found, further, that after six days a new and hitherto undescribed bacillus developed on the media and had evidently been partially responsible for the sepsis. The necessity for waiting several days to determine the true causal agent or agents is emphasized by this case. Even the cultivation of one germ does not exclude the possible presence of others. In the case reported, the Widal test was positive at 1 to 200, but nothing was found to explain this fact, no signs of typhoid being discovered.

138. **Cytorrhyctes Luis.**—Jancke found Siegel's cytorrhyctes, exactly as he has described them, in 10 placentæ from women known to be syphilitic. Control examination of placentæ from normal women always resulted negatively. Siegel's technic was described in the *Münch. med. Wochft.*, 1905, Nos. 28, 29 and 32. Jancke obtained the best specimens by staining with azure for twenty-four hours, rinsing for half an hour in distilled water, and then drying in the air. They were then dipped for one or five or eight seconds in alcohol, then in xylol, and mounted in balsam.

139. **Prevention of Puerperal Fever.**—Lingel urges that midwives be forbidden to make vaginal examinations of pregnant or parturient women.

Books Received

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

Department of the Interior Bureau of Government Laboratories. Manila: Bureau of Public Printing. 1905.

No. 29. September. I. NEW OR NOTEWORTHY PHILIPPINE PLANTS. II. THE SOURCE OF MANILA ELEMI. By E. D. Merrill, Botanist.

No. 31. May. I. NOTES ON A CASE OF HEMATOCHYLURIA. Together with Some Observations on the Morphology of the Embryo Nematode Filaria Nocturna. By W. B. Wherry and J. R. McDill, M.D. II. A SEARCH INTO THE NITRATE AND NITRITE CONTENT OF WITTE'S "PEPTONE." By W. B. Wherry, M.D.

No. 32. June. 1. INTESTINAL HEMORRHAGES AS A FATAL COMPLICATION IN AMEBIC DYSENTERY and Its Association with Liver Abscess. By R. P. Strong, M.D. II. THE ACTION OF VARIOUS CHEMICAL SUBSTANCES ON CULTURES OF AMEBA. By J. B. Thomas, M.D. III. THE PATHOLOGY OF INTESTINAL AMEBIASIS. P. G. Woolley and W. E. Musgrave, M.D.

No. 33. June. FURTHER OBSERVATIONS ON FIBRIN THROMBOSIS IN THE GLOMERULAR AND OTHER RENAL VESSELS IN BUBONIC PLAGUE. By M. Herzog, M.D.

ESSENTIALS OF MATERIA MEDICA, THERAPEUTICS and Prescription Writing. Arranged in the Form of Questions and Answers Prepared Especially for Students of Medicine. By H. Morris, M.D. Seventh Edition. Thoroughly Revised, and Adapted to the Eighth Revision (1905) of the United States Pharmacopeia, by W. A. Bastedo, Ph.G., M.D. Cloth. Pp. 300. Price, $1.00 net. Philadelphia: W. B. Saunders & Co. 1905.

DOSE-BOOK AND MANUAL OF PRESCRIPTION-WRITING, with a List of Official Drugs and Preparations and Many of the Newer Remedies with Their Doses. By E. Q. Thornton, M.D., Ph.G. Third Edition. Revised and Enlarged and Adapted to the Eighth Revision (1905) of the United States Pharmacopeia. Flexible Leather. Pp. 392. Price, $2.00 net. Philadelphia: W. B. Saunders & Co. 1905.

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